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Erratum.—Page 51, last line, for "his" read "their."

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ANNALS

OF THE

WHARTON SCHOOL.

The Development of The House.

An Oriental apologue, which has been rendered into exquisite verse by Friedrich Rückert, represents "Chidher the ever-young" as describing the changes he has seen passing over the same spot of Earth and the indifference of mankind to all of these that do not immediately affect themselves. "I passed by a city," he says, "where a man was gathering fruit in his garden, and I asked how long the city had been there? He went on plucking fruit, and answered that the city always had been there and always would be. But five hundred years later I passed by the same way, and I found not a trace of the city. A solitary shepherd was playing on his pipe, while his flock fed on the grass and leaves? I asked how long it was since the city had disappeared? He went on playing when he had answered that there always had been a sheep-pasture there. After another five hundred years I passed by that way again, and I found there the sea, and the fishermen casting their nets. As they rested from their toil I asked one of them how long the sea had been there. He laughed as he made answer, 'As long as the foam has been on the waves out there!' And after another five hundred years I passed by that way again, and found a forest wherein a woodman was felling a tree. I asked how long the forest had been there, and he told me the trees had grown there through all ages. After another five hundred years I

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passed by that way again, and found a city whose market-place was full of the noise of its people. I asked how long the city had been built, and what had become of forest, meadow and sea? They gave me no heed but went on with their din. After another five hundred years I shall pass by that way again."

This old tale is not an inapt picture of the stolid indifference with which the majority of mankind regard the past even in its most intimate relations to their own lives, and of their assurance that it contains nothing different from what they have been accustomed to. We each of us think that our little meadow has been grazed over from time immemorial, and that other flocks will take the place of ours when we are gone. But history is the true "Chidher the ever-young," that comes to remind us of the ceaseless changes that pass over the face of human society, and to show us that these are not unmeaning or uninteresting to us. It shows us that our most familiar and everyday arrangements are the growth of ages of thought and devising, and that our whole life is a comment on the text: "Other men have labored, ye have entered into their labors." This more homely and familiar side of history began to receive its share of attention when good Dr. Henry published his "History of Great Britain" (1771) and showed his readers that there was more in the story than the records of battles and dynasties. It reached its culmination in the recognition that the history of culture is nearly as important for the proper understanding of the world's development as is that of politics. It finds its caricature in the assumption that the story of human manners may become a substitute for the philosophy of ethics and for the science of politics, and that the deepest causes of institutions may be found in the occasions which seemed to call them into existence.

In America we must find the past of common things and arrangements harder to realize because of the absence of the monuments of our common past, which Europe possesses in such abundance. Modern Europe lives in an atmosphere fragrant, or shall we say musty, with the memories of the centu-

ries that are gone, and among surroundings that are eloquent in their commemoration. We are happy in any heirloom that carries us back a century or more; and the greater value set upon such heirlooms in these days is a sign of good, however gross may be the follies that connect themselves with the feeling. Our comparative poverty in these things, however, must make the study of history as a literature more dear to us, as the chief means by which we may learn from what pit we were digged and out of what rock we were hewn.

The story of the way in which our ancestors housed themselves is one of those homely sides of history, which cannot fail to interest their children in some degree. The business of keeping themselves alive by the shelter of roof and home,—the struggle for warmth—must have constituted a great part of their conflict for existence, as they lived outside the equatorial regions. In all but those regions it still employs a large share of human energy. It is to Northern Europe that we must turn for the records of this struggle, for it is from those Teutonic and Scandinavian regions that we derive our social traditions. And it is much more from Scandinavian than from Teutonic sources that we may derive an exact and detailed knowledge of the modes of life which prevailed in Northern Europe a thousand or eight hundred years ago. When the rest of Europe was content to make such a record of itself as is to be found in the dry details of a monkish chronicle or in the meagre notices of a saint's biography, the Scandinavian North was producing a literature which pours a flood of light on the early history of customs and institutions. The old Sagas are pictures of life in the Scandinavian peninsulas and in their island colonies, more abundant in details than we have of any other countries in the time when Europe was passing from Paganism to Christianity in the early Middle Ages. Iceland and Norway they put before us with a wealth of fact and circumstance we are accustomed to expect from the daily newspaper and from that alone. From the people of these old Sagas nearly one-half the so-called Anglo-Saxon race are descended, and the Low Dutch ancestors of the

remainder differed but little from them in these earlier periods, when the separation of the two stocks was still a recent event.

The best commentary upon the record of manners and custom in the Sagas, is to be found in the historical monuments of Scandinavia. When the vigorous life of the earlier Middle Ages died out of those Northern nations, they became as conservative as they had been aggressive. Their remote position kept them out of the way of many changes that affected the South. Their comparative poverty obliged them to preserve and keep in use structures which elsewhere would have been swept away by "the march of improvement." But above all, the conservative spirit became so powerful among them as to stereotype every arrangement with something like the rigidity of the oriental civilizations. Whoever dared to make a change from the ways known to their fathers, was regarded as setting himself up for something better than his neighbors and his "forbears." As a consequence these countries have become a kind of museum of historical relics, to which the whole Teutonic stock may go for the study of family antiquities.

The native students in this great museum must not be passed without mention. In view of the very limited scope of this paper —the history of the house,—it suffices to name two. The first is Rev. Eilert Sundt, well known to ethnologists through his painstaking investigations into the habits and traditions of the "Fante-Folk" (or Gipsies) of Norway. While engaged in his investigations with the support of the national government, he had to travel through all parts of Norway. As he rode past the homesteads of the "bonders" (or farmers,) he was struck first with the differences between the houses in different parts of the country, and then with the evidence that a common type underlay and gave unity to their plan, in spite of these differences. He began to look into the matter more closely, visiting and examining every house that seemed to possess any claim to antiquity. As the result of these labors in the study of rural architecture he published,—first in the periodical called "Folkevennen" and then separately,—a treatise "On Architectural

Fashions in the Rural Districts of Norway" (*Om Bygnings-Skikken paa Landet i Norge. Christiania, 1862.*) His carefully chosen and abundant illustrations have been useful to subsequent authors, who have copied them without any acknowledgment. We may instance Mr. Paul Du Chaillu in his "Land of the Midnight Sun." The other writer to whom we shall be indebted is Prof. Troels Lund of the University of Copenhagen. His "Every-day Life in the Scandinavian North in the Sixteenth Century" (*Dagligt Liv i Nerden i det 16de Aarhundrede*)—is known to us only in the German translation made under the author's supervision (*Das Tägliche Leben in Skandinavien während des Sechzehnten Jahrhunderts.* Kopenhagen, 1882.) It combines with the results reached by Eilert Sundt, those obtained by other students in the field whose cultivation he began. His investigations were confined to Norway; his successors have extended them to the related countries, both Teutonic and Scandinavian, while acknowledging the richness of the Norwegian field to exceed that of any other.

By a house our forefathers understood something quite from what we mean by that term. We think of a building of wood or masonry, constructed in several stories, divided internally into several chambers or rooms, lighted by windows pierced in the walls, and relieved of the smoke of its fires through funnels called chimneys. And this structure we think of as the home of a natural family, and of the attendants it needs for its household service. The house of our forefathers, however, was not constructed on more than one story; it was not subdivided into rooms; it had no chimneys and no windows; and it was constructed for the use of a much larger group than the ordinary or natural family. How this kind of house became the house we are accustomed to, we propose to show.

To go back to the beginning, the first Northern house was the cave* in the hillside, with "a southern exposure" pre-

* The Aryan race had ceased the use of caves as homes before their migration into Europe. That the Finnish aborigines of the Scandinavia lived in caves is very probable. Caves which retain the traces of human occupation are found in Sweden, but none in Norway.

ferred, lighted and ventilated by the mouth. When the supply of caves ran too short for the needs of a growing population, men discovered first the possibility and then the advantage of building their own caves, rather than taking such as nature might furnish. But the cave set the model and limited the ideas of the first architecture. A single huge room, with low side-walls and lofty gables or end-walls, and with no interior subdivisions, was the result. Such was the old house of Northern Europe. It was constructed either of dried mud or of timber or of both, and with a roof of thatch or sods supported by a framework of wood. The side-walls were no loftier than the height of an ordinary man, and the roof jutted out beyond them, sometimes till it reached the ground on either side; and when, as ordinarily was the case, the roof was of sods, the whole presented the appearance of a grass-grown, flowery hillock of rather more regularity than in nature. The roof was also a favorite grazing-ground for the goats, the sheep, and even the pigs of the establishment! These four-legged visitors managed now and then to thrust a leg through the solitary opening which served as the window; but the roof itself was too strong to be injured by them. It was laid over a covering of birch-bark which was placed on the joists, and the whole house-covering would last as much as sixty years, and one of thatch thirty years. The house itself, if built of wood, might measure its age by centuries. There are wooden houses still standing in Norway, which may have been in existence in the days of Saint Olaf, and may have witnessed the conversion of their owners from the worship of Odin and Thor to Christianity; and they look as if they might stand through another millennium. In New England there are wooden houses still as good as new, which have stood for more than two hundred years, and which seem capable of lasting three times as long as they have done. In this part of the country we are apt to associate wooden architecture with flimsiness, but in fact wood is one of the most durable of building-materials, when constructed with solidity and well cared for.

In passing to the interior of this grass-grown and flower-bedecked building, it is necessary to remember what manner of people they were who lived in it. Those early ages were times of private warfare, when the authority of the law and of the civil magistrate had not become sufficient to restrain the violence of the elementary passions. Nearly every family had a hereditary feud with one or more of its neighbors, and few people went out of the house-door without running a large risk of being brought back feet-foremost. As a consequence, every man's house was his castle in a very literal sense. It was constructed for purposes of defence as well as of residence; it was garrisoned by a body of retainers; it was the home, not of a natural family, but of a group or clan of which the master was the chief. While much of what constitutes for us the charm of home was thus lost to our forefathers, there were gains in other directions which they prized not less highly. The wider family circle permitted of social enjoyments, such as saga-telling or household games, which a people of simple habits and of no large mental resources must have thought more delightful than family privacy. Indeed there is room for the doubt that the change to the smaller group has been more rapid and complete than suits a large portion of the ruder sex. Their club-ward and tavern-ward tendencies seem to show that their mental resources are still too limited, or their interest in the finer shades of existence too weak, to permit of their finding ample satisfaction in the circle of the natural family. Like their forefathers, and perhaps by virtue of the workings of heredity, they feel the need of a larger field of social enjoyments.

The home of this larger group, in those early times was a single large room, in which all ate, lived and slept. Its central point was the fire-place, around which was gathered the whole in-door activity of the family. This fire-place was nothing more than a space in the centre of the common-room, placed exactly under the opening in the roof by which all the light they got came in, and all the smoke they got rid of went out. As this aperture was but a foot square, it may be sup-

posed that it did not serve either purpose very effectively.* Besides, in very wet weather it was shut by a wooden frame covered with a piece of hide as translucent as the soot allowed it to be. The name of this opening in Old Norse was the *light* (Norse, *liori;* hence the French, *louvre*): in Swedish they called it the "wind's eye," (*windoga*,) whence our "window." Besides its peaceful uses, the window in the roof was of great importance in neighborly hostilities. As the sloping roof approached, if it did not reach the ground, it was an easy matter for an enemy to place himself at this the only accessible opening into the interior of the house, and to wait until his opportunity came to discharge his weapon at his enemy at the fireside below. And so we read in the Sagas of men murdered at their own firesides through this opening. Thus in the slaying of Gunnar (*Nial-Saga*, cap. lxxvi.) Thorgrim the Easterling climbs upon the roof to find if Gunnar is at home. But Gunnar "sees a red kirtle pass before the window-slit, and thrusts at it with his bill." Thorgrim falls to the ground dying, and the rest go on with the attack, but Gunnar holds them at bay by shooting his arrows through the window opening, while they cannot get at him. At last they tear the roof off the hall by fastening ropes to the ends of the carrying-beams which support the roof, and thus win their way to him. The door was not preferred by such assailants, because it was constructed expressly for defence. It was made so low that no one could enter without stooping, while the threshold was so high that no one could come in without lifting his foot to a considerable height,—both movements placing him at the mercy of any one who chose to dispute his entrance. It was therefore the window in the roof, and not the door, at which special care must be taken, and at which an archer took his post in special times of danger, standing on the cross-beams of the framework that held up the roof.

The furniture of the house was as peculiar as the building itself. It did not consist of a great number of moveable pieces,

* Eilert Sundt, however, says that he was surprised to find how light a room might be with no other opening than this in the roof.

as with us. Two long rows of broad benches were fastened to side walls of the building, and served as seats by day and as beds at night. In front of each row were tables either moveable or fastened to the floor; and between the tables lay the space for the hearth-fires. On occasions of great festivity, such as weddings, two additional rows of seats were placed along the tables in this inner space; but for all ordinary purposes the two rows sufficed. The furniture was not as with us a collection of "moveables." For the most part it was fixed to the walls or the floor of the house. It marks the violence of the struggle in the Grettis-Saga between the outlaw and the vampire, that the furniture of the farmer's hall was wrenched from its place in the deadly conflict.

The seat at the middle of the room, opposite the central fire, was of course the warmest and therefore the most desirable; it was raised higher than the others, and hence called the High-Seat. That which stood on the south side of the room or hall was reserved for the master of the house and his wife, and was distinguished by two upright posts of carved wood. These posts were sacred symbols of the continuity of the house and the authority of its master. The chiefs who emigrated from Norway to Iceland carried these posts of their High-Seats with them and cast them into the sea as they drew near to their new home. Wherever the posts came ashore, there they fixed their homesteads. Similar to these in point of sanctity in later days were the two cords to open and close the window in the roof. Whoever came to the house on any mission of high import, such as to ask the hand of its daughter in marriage, began by laying hold of these cords as his most auspicious introduction. The High-Seat on the north side of the hall was next in honor, and was reserved for guests of distinction. In the largest halls a third high-seat formed the centre of a bench across the Eastern end of the hall, and was reserved for the women of the family; but the more usual custom was for the wife to take her seat beside her husband. If we may judge of the oldest usages by what was seen in Scandinavia three centuries ago, on winter

nights the house was expected to furnish lodging not only for all the human members of the establishment, but also for all chickens and such four-legged youth of the barnyard as were still too young to bear the inclemency of the winter nights in the open air. Guests, if there were of any distinction, were lodged on the tables; if they were common people, they had to select the softest place they could find on the floor. One such traveller in the sixteenth century tells us of his being awakened by a pig licking his face, and finding the hens perched on his knees, while kids, lambs and calves were occupying other parts of the common abode.

As the chieftains grew in power and in importance, they began to erect more luxurious and comfortable halls, but still after the old model furnished by the primeval cave. Instead of a single fire in the centre of the hall, there was a series of such fires, with corresponding openings in the roof. The spaces just under either eave and close to the side-walls of the building were shut off from the rest by a wainscoting, and were partitioned into small bed-rooms, some of which were entirely enclosed and called Lock-beds, while others were left with open door-ways. The former were used by the master of the house and the members of his immediate family, not only as being more private, but as being safer in case of a night attack. The other arrangements of the interior continued as before, but it became usual to supplement the great hall by out buildings of small size for various purposes. Hence the origin of the "lady's bower" (old Norse and Anglo-Saxon *búr*) for the storage of garments and hangings, which would suffer by exposure to the smoke and soot of the hall, and for the practice of feminine industries by the lady and her "bower-maidens." In some cases the bower was used as a larder for the storage of meat to prevent its injury by the heat of the hall; but separate buildings were added for this purpose in later times. A more common use of the bower was as a summer sleeping-place for either the master of the house or his guests. A third building apart from the hall was the

seething-room or kitchen, whose erection beside the greater halls enabled the master and his guests to enjoy the fire without the interruptions of the cook. An old Icelandic law provides that if a bonder have another fire-house besides his hall, he shall elect as which of them the community shall be obliged to pay for in case of a fire.* It was not thought fair to make the community responsible for more than one fire-house. Of these new out-buildings, the bower and the larder were constructed with especial reference to the depredations of the rats. They were mounted on posts and approached only by a ladder, between whose top and the threshold was an interval too great for a rat to leap over,—a form of architecture which seems to have suggested the later dove-cote.

Next came a more marked subdivision of the hall internally. A wall parallel with the gable and of equal height cut off a part of its Western end, forming an ante-room which served more purposes than one. It was divided into two stories by a horizontal flooring, and each story into two rooms by a perpendicular partition. Of the two rooms on the South, the lower formed a porch to keep off draughts from the fire, and to keep out the cold air, as do our storm-doors. The room above it was connected with it by a trap-door. As is indicated by its name, "*berkfriet*" or "peace-keeper"—corrupted in later English into "belfry"—it was an addition to the defences of the house. A sentinel placed in the upper story of the new porch, or a person escaping into it, could offer a prolonged and successful resistance to an attacking party. The other half of the upper story was used as an especially safe bed-room, and was called a "*ram-loft*" or strong-loft, while the room below it became a store-house for clothes and food. It serves to mark the date of this innovation that the ram-loft is mentioned in the Saga of St. Olaf as a new thing, the royal missionary being lodged in such a loft during one of his many journeys through Norway.

With all these lesser changes, the old hall retained its first

*See Mr. Dasent's Introduction to his translation of the *Nial-Saga*, p. ci. note.

type as a single smoky living-room of large dimensions. Those who lived in it were quite satisfied with it. Nothing but necessity could have compelled them to make any change in it. The necessity came in the shape of scarcity of fuel. The open hearth was terribly wasteful. To feed it Iceland was stripped of its stunted but valuable forests, to the lasting injury of the agriculture of the island. Wherever fuel held out the longest, the open fire-place was retained the longest also. In Eastern Norway the forests were abundant, and no change was necessary. In Western Norway, in the reign of Olaf Kyrri (or the Inert) we hear of the first fuel-saving contrivance, whose use spread over the North of Europe.* This was near the close of the eleventh century, and the new apparatus was rude enough. It consisted of a low furnace of baked clay, not unlike an old Dutch oven in shape and size. The fuel placed in the interior sent its flame and smoke out into the room through an opening in the top, while it also heated the whole structure in a way that made it radiate out heat for hours afterwards. This was a better economy of fuel, but the glory of the fireside was departed. The house was not a whit less grimy than before, for the smoke still made its way through an opening in the roof. But the fire gave far less light, and that in an intermittent and uncertain way, so that the use of oil-lamps in the house began about the same time. Another effect of the change was the transfer of the High-Seat. For convenience of draft the fire was now removed from the middle of the Hall to the end next to the door, and the seat of honor and of comfort went with it. But not in every case. At first it was a mark of aristocratic affectation to take the place at the end rather than at the middle of the table; but afterwards the

* Eilert Sundt is of the opinion that this is some such fuel-saving arrangement must have been in use from the first, in parts of Norway where fuel is scarce. But it is expressly said that it was introduced in the reign of Olaf Kyrri, a period in which Norse manners as regards dress and other matters were much altered by the imitation of foreign fashions. See Prof. Keyser's *Private Life of the Old Northmen.*

fashion shifted, and while the end of the table remained the seat of honor among the Middle Class, the middle of the table became so with the Upper Classes of Northern Europe. Both usages obtained currency in England, and by consequence in America; but there is reason for regarding the seat at the middle as the older American usage.

The great revolution, however, came with the invention of the chimney in Northern France about the close of the twelfth century. It is surprising to find that the chimney is of such recent invention, and that the Greeks and Romans had none. It is well established, however, that the ancients had to bear with the smoke in their eyes just as our forefathers had. Vitruvius, the great Roman architect, warns his readers not to put carved work into rooms which have a fire-place, as the soot will certainly ruin it. The only escape from the smoke they knew of was by a costly apparatus for transmitting heated air into a fireless room, or the use of braziers of lighted charcoal. Indeed it may be said that to this day the Northern fire-place is an exotic in Southern Europe, as in Spain, Italy and other Mediterranean countries the charcoal brazier more than holds its own against it, to the great discomfort of Northerners who have to visit those countries in Winter. The oldest known chimneys are in France, and are of about the year 1170. The French origin of the invention is confirmed by the spread of the terms *chimney* and *jamb* into the British Islands, and of the term *poesil* into Scandinavia,—all words of French origin and all connected with the new heating arrangement. On the introduction of the chimney a fresh and complete transformation of the house was begun. The first sign of it was the construction of lofts across a part of the hall; then the loft was extended over the whole hall, as there was no longer any need of a space under the roof to contain the smoke for the relief of human eyes. The different stories of the house were divided into separate rooms; and the separate use of each in the economy of the house was assigned. In many cases, however, the old hall was left as it was, and a new house was built with

the new arrangements and subdivisions. In that case the hall was reserved for high days and holidays, when the old gatherings of gentle and simple were in place. This may be said to have been the course of things in many English manor houses. In many parts of Norway, however, the old fire-house (*Ild-hus*) of the farm is reserved for winter use, while the new building is the summer home. In other cases the reverse is true. All this was a gain in directions which we regard as indispensible to the comfort of existence; but it was not effected without much misgiving and no little opposition. It destroyed the old democratic unity of the house and deepened the lines of distinction between social classes. It put a stop to the old social enjoyments of the common fire-side, and even to the literary activity which ministered to those enjoyments. It broke up the old group, and put an end to all the mutual influences for good and evil which had their play within it. It gave the more refined a limited sphere in which to exercise and develop their refinement; and it left the coarser to grow more coarse in surroundings such as they might create for themselves. Mr. Crabbe Robinson, who saw the last remnants of the earlier system in Germany at the close of the last century, was pleasantly impressed with its social character. He writes to his brother from Hamburg in 1800:—

"The houses at Hamburg perpetually suggest the idea that you are looking at England as it was a century ago. The original model of a farm-house (and farm-houses were the primitive houses) as I have seen it in the wild parts of Hannover, is that of one immense room, without chimney or division,—the various parts being allotted, as a farmer lays out his different seeds or fruits. At one corner the fire,—here the beds,—there the piggery,—there some furniture,—and a good carriage-way all through. Now the progress of refinement is this: after a time the sides are separated (like the King's Bench and Common Pleas in Westminster Hall), glazed, and adorned for the women and children,—but still the centre is unpaved. I have seen several respectable houses of this kind in the

country near Hamburg. Refinement increases, but still the old hall remains as in ancient English mansions. Perhaps we have gone beyond the exact mark of propriety through our proud love of retirement, and by converting our halls into narrow passages and large parlors, have injured our houses as summer retreats and promoted the natural shyness of our tempers. In the houses near Hamburg the genteelest families dine or drink coffee in their halls, and with the doors open to observation and curiosity. In the town too most of the houses have the narrow or gable end in front."

But it would be a mistake to suppose that this change took place either suddenly or uniformly. In some cases the old relations lingered long after they had ceased to be unavoidable, and master and dependent remained on a footing something like equality even in the new-fangled house. This is shown by Dean Ramsay's stories of the old-fashioned servants in Scottish families,—of their rough familiarity and their assumption of responsibility for all that belonged to the house and all that was done in it. The chimney, however, generally substituted the reign of the manageable hireling for that of the plainspoken dependent. This change took place slowly in such out-of-the-way places as Scotland or Ulster; and our recollections of the old-fashioned servants in Ulster corresponds exactly to what Dean Ramsay tells of the Scotch. Is it not the fact that a great deal of the grumbling about the deterioration of domestic service grows out of a wish to keep one-half of the old relationship—the half which suits the employer—while getting rid of the other?

But after all allowances have been made, the balance of gain remains on the side of the modern or divided house. It gave scope for the large and free development of the life of the true or natural family,—that great social unit which lies at the foundation of all sound social growth. If it lowered the social status of the few who remained in the house as dependents, it also emancipated the more part by enabling them to become house-holders themselves; for with the abolition or transfor-

mation of the old "halls," there arose a far greater number of small homes than had been possible before. The cottages of Europe arose when the alterations in heating, as well as the greater degree of social security, made it no longer necessary for every house to entertain a garrison of retainers; and these developed the family life under new and not less favorable conditions than those of the hall. It is true that there had been these humbler homes before, and that they kept up the old traditions, as might have been expected, longer than did the houses of the wealthy. Thus in the seventeenth century we find Jeremy Taylor in one of his sermons praising the poor herdsman who does not "covet the neat cottage, which yet he likes well and thinks it excellent, because it hath a chimney." Another writer of that century says of the English farmers in Cheshire: "In building and furniture of their houses, till of late years, they used the old manner of the Saxons; for they had their fire in the midst of the house, against a hob of clay, and their oxen under the same roof; but within these forty years they have builded chimneys" (King's *Vale Royal*, 1656.) Southey speaks of having seen a house of this sort in Lancashire as late as 1807. And indeed the old-fashioned open hearth in the middle of the floor and the opening for smoke in the roof, still may be seen in the Highlands of Scotland, and in the country districts of Japan.

The introduction of the chimney and the subdivision of the house into rooms led to the piercing of the walls for windows. At first light was admitted and draughts excluded by means of oiled paper or translucent skins, or even the opening was closed only in bad weather by a shutter of wood. But by the end of the sixteenth century glass had fallen so far in price as to bring it within the reach of the rich for this purpose, while it was still so costly as to make a glass window a very acceptable and distinguished wedding-present. To avoid accidents the window was fixed in the wall so as to neither open or shut —a fashion still followed in some quarters after the cost of repairs has become trifling. Another survival of the good old

times is the practice of breaking a man's windows to show hatred for him or his doings,—a proceeding which had some sense in it when it cost him a small fortune to repair them, but which now has become futile and almost unmeaning.

The changes in the furniture of the house corresponded to those in its arrangement. The hangings of colored stuffs, which had been stored away in the chests of the women's bower, and brought out only for festal occasions, now took their place permanently on the walls. They mostly corresponded to the modern idea of ornamentation,—that a picture should be a dash of color on the walls, a symphony in red or blue or green, without any story to tell. A few were so odd in their tastes as to prefer tapestries on which were told the Balder-myth or some other tale of the Æsir; and the taste for these pictured hangings grew with the lapse of years until in the sixteenth century this branch of artistic production became the most important known in the North of Europe. The Bayeux tapestries wrought by the Conqueror's wife and her ladies are an important authority for the details of the history of the Norman Conquest. Beside it may be placed the tapestry wrought for the king of Denmark in 1581, one hundred ells in length and twenty in width, and telling the whole history of the kingdom.

The furniture of the house by degrees broke away from its primitive fastenings to the walls and the floors, and resolved itself into the smaller and movable pieces, to which we are accustomed. The lock-bed, from forming a panneled recess in the side of the Hall, became the canopy-bed still known to our childhood, and retained in its vast dimensions and its lofty altitude. Steps were indispensable for climbing into it, but there was room enough when once you got there. As no space was wasted in the old houses, this bed accommodated not only the master and wife, but also their younger children, with the result that a large share of the children were overlain and smothered,—an accident which might easily happen in an age which was free in its use of intoxicants. At first the canopy-bed, like its predecessor, was made of wood and shut in at

night like a house within a house. For this a wooden framework afterwards was substituted, and was covered with those hangings, over which our grandmothers did battle with the medical profession. A more wholesome though less dignified kind of bed was made by detaching a part of the old sitting-bench from the rest and arranging it so as to open out at night and close up into a bench by day. These chest-beds, as they were called, were used first for servants or guests of no distinction; but they came into more general use as their merits became better understood, and by degrees they supplanted their more pretentious rivals. At the last a compromise was reached in the settle-bed, made not to fold up but to push under the canopy bed at night, and which, when made independent of it, became the modern bed itself.

The old side-bench fastened against the wall broke up by degrees into other articles beside the settle-bed. From it are descended the chest or trunk, the settle or sofa, the chair, and every other essential article of our household woodwork, except the table and the dresser or cabinet, which had an independent origin. Each of these now served some separate function, which had been united formerly in the side-seat, as that had been seat and chest and bed in one. But the separation was gradual, as was the distribution of the uses of the old living room among the other rooms of the new house. We still hear of the servants and even the master and mistress living and eating in one room, when the house contained several. This was the result of a reluctance to come into conflict with a very conservative public opinion, which frowned upon every innovation that could be avoided, and regarded every change as involving offensive assumptions.

As the new house contained two stories, a staircase was needed to reach the upper of the two. At first this was erected outside the house, and terminated in a corridor which gave access to the several rooms on the upper story. Afterwards this corridor and staircase were enclosed by wainscoting as a part of the house, adding both to its comfort and its safety. The

floors of the upper story, as well as the lower, were made of clay, for our forefathers had a not unreasonable dread of wooden floors as a means of spreading fire. The walls were wainscoted to the height of a man's head, but of plastering on wall or ceiling there was none. The rooms were dimly lighted, dingy in color, small in size, and in every way unattractive.

Very much of this description applies equally to the city houses with those of the country, although of course there were differences which grew out of the narrowness of the space to be had for a house in the city. Our forefathers had no especial love for city life. With Dan Chaucer, they would rather hear the lark sing than the mouse squeak. But the necessity of trade and of safety drove them to the closer fellowship of city life; and the city became an important element in the life of Northern as of Southern Europe.

Those old cities were built in defiance of every sanitary principle. Their streets were narrow and filthy to the last degree, being the receptacle of whatever rubbish it was convenient to have thrown on them. They also were the haunt of the town's pigs at all hours when these were not pasturing in the beech-forests in the suburbs. The governments labored to enforce some rules of cleanliness, and especially for the expulsion of the pigs, but with as good as no success. On one occasion a Danish town was expecting a visit from some high excellency, and at the last minute it occurred to the Town Council that his eminence might be fastidious in the matter of smells. To clean the streets never seems to have occurred to them; but they set every cart in the place at work to bring up sand from the sea-shore, and with this they covered up the filth to the depth of several inches! Quite as mischievous to health was the narrowness of the streets, as it shut out the sunshine from both street and house. Sir Thomas More deplores this evil in his "Utopia," and suggests that every street should be at least sixty feet in width; but the world had to wait long for the achievement of that reform. Twenty or thirty feet were thought a plenty of width; and even upon that the good citi-

zens encroached to the utmost, as they never think of doing in modern cities. When debarred from pushing farther to the front on the ground, they made the upper stories jut each beyond the other as far as even the capacities of wooden architecture would permit. The maximum was reached by an English house in York, whose upper stories jutted fifteen feet beyond the lower! The ground space next to the house, as far as these upper stories jutted, and even as far as the gargoyled water-spouts shot out the rain-water, was practically annexed to the house. It was occupied by porches, trading-stalls, benches, rubbish-chests and even pig-styes. For foot-passengers, therefore, there was no place near the houses, and they needs must take the very middle of the street, where a broad flat stone lay for their accommodation. It was called "the burgomaster's stone" on the continent, and in Scotland "the crown of the causeway;" and endless and bloody were the battles in Edinburgh between chieftains (and especially the Highlanders), who met each other on this stone and refused to yield an inch of its breadth. Even this measure of accommodation left the streets in a condition which made them all but impassable at the best of times, and quite so by our standards after a storm of rain, unless the streets were so steep as to use the rain itself for their cleansing. In every part of their length great hollows lay ready for the accumulation of wet and filth, and the incautious traveller might find himself fairly swamped in their depths. To this neglect, Holland was a solitary and honorable exception, and her influence was felt everywhere in favor of better methods. We see in Erasmus's criticisms of the filth of the English halls the fastidiousness characteristic of his nation; and the Dutch carried this criticism wherever their manifold business connections took them. It was a Dutchwoman who first cleaned the streets of the cities of Denmark and Norway; and when the popular prejudice had driven her out of the country, some of those who had hated her influence with the king, declared they would be glad to see her back and in power, in order to get the streets clean once more.

The interior of the town-house followed much the same course of development as we have seen in that of the country; and while there were some differences between the houses of the rich and those of the middle class, there were resemblances enough to mark them as belonging to the same family. The common living-room seems to have been common to both, and to have been entered through a structure of two stories, of which the upper was a *berkfriet* or "belfry" for purposes of defence. This porch or ante-room opened into the general living-room with the hearth in the centre. But already a desire was shown for the subdivision of the house, and the side of this room which lay to the right was given up to the work of the men at their trades, and that at the left to the women and their cooking. When the invention of the chimney made it possible, the lower story was divided in the same way into two rooms,—the workshop and the living-room, while a farther division afterwards separated the kitchen from the living-room. The shop was such in the American (not the English) sense of the word. It was for the making, not the display of the wares, the latter being conducted at stalls on the streets rather than in the houses. Indeed it was not thought dignified for a master workman to show any anxiety to drive a bargain in his house. It was not an age of advertising, and such maxims as "Good wine needs no bush" were favorite sayings. Perhaps it would be truer to say that society had not yet reached that stage in the development of mutual confidence which makes advertising possible,—as it is said the Italians have not to this day. At any rate the medieval workman at home did not "talk shop" unless he could not avoid doing so.

The town house stood with its gable end to the street, as do the old houses, even in some parts of our own country. It was built of wood and dried clay,—the former making the framework and the latter the filling,—and was thatched with straw. As a consequence the towns of Northern Europe were devastated at brief intervals by the most destructive fires, and were burnt down on an average about once in a generation.

Here also the government did its utmost to promote the interests of the people by forbidding the use of thatch and commanding that of tiles, but it was defeated by the stolid resistance of its more conservative subjects. Thatch had done for their forefathers and it would do for them also; it was cheaper than tiles and was wonderfully lasting if it did not take fire: why should they be required to make any change? Similar was their resistance to the policy which fostered the use of mason-work as less inflammable than their combination of wood and clay. They preferred to take the risk rather than make the outlay. But they did establish an annual inspection of the fire-places by city authority, in order to make sure that these were constructed with such precautions against conflagrations as were possible and cheap.

The staircase, as in the country houses, ascended to the second story outside the building, but from the court-yard in the rear, not from the street. The corridor at the top became the favorite sitting-room in good weather for the ladies of the family, as it was raised above the court-yard to a height which ensured them fresh air, and as it gave a good view of whatever was happening in the vicinity. It thus took the place of the lady's bower in the country-house, or the Italian *loggia*, and became the ancestor of the balconies, stoops, and verandas of our modern usage. In the course of time it also was enclosed as part of the house, but with windows so placed as to make it still a favorite place of outlook. As the windows in the front of the house were fixed firmly in the wall, and could not be opened, they gave a view only of what was occurring opposite the house or nearly so. To remedy this defect and enable their owners to look up and down the street, the bay-window was devised—a sufficient refutation of the old slander that woman never has invented anything. But its continuance after sash-windows have come into general use would have surprised its inventors.

As the numbering of houses was not devised until the eighteenth century, the houses of the early cities were known

by the names of their owners simply. When the population became too numerous for this to serve, they were distinguished by trade-marks, coats of arms, and personal devices of various kinds. Thus, as is indicated by the proverb just quoted, a bush was the sign of a tavern, and so with other trades. As the totem on the Indian's wigwam shows, this is the most primitive of all modes of designation, and was once common for reasons of necessity to all classes. It has become the whim of the rich, whose crests and blazonry are the last survival of the universal usage.

In one important respect the houses of our forefathers must seem defective. They contain as good as no provisions for a proper ventilation. The one window in the roof must have been quite insufficient to secure the escape of the smoke and the foul air; and when it was superseded by windows in the walls, these were made so as to do as little as possible for the purification of the atmosphere within the building. Yet it is possible to exaggerate their defects in this regard. The lofty space above the fires in the old halls of itself furnished some security for the healthfulness of the living-room, while the fact that the smoke did not escape was not an unmixed evil. Smoke is an excellent antiseptic, as is shown by its use in curing meats; and while its presence in the hall may have been unpleasant to the eyes of the inmates, and the free deposit of soot may have been objectionable on æsthetic grounds, there can be no doubt that the dwelling was all the better for both. When the chimney and the separate rooms took the place of the hall and the open hearth-fire, the mischief done by the absence of provision for ventilation was much less than might be supposed. One great means of ventilation enjoyed by our forefathers was in the badness of their carpentry and masonry. The notion that a door or window frame should fit the opening made for it so exactly as to exclude all drafts, is purely modern. Our forefathers had more regard for the frailty of human nature and the feebleness of our best efforts, than to exact such nicety. The opposite habit of thought is very modern;

indeed, it may be said to have arisen within the lifetime of people now living. "How did you keep warm in those old houses when you were young?" asked a young lady of this city. "My dear," answered her grandmother, "I never was warm in winter until I was forty years old." It is the introduction of better carpentry that has stopped the natural ventilation by draft, and has made the supply of pure air a sanitary question. Hence the keen repugnance to winter and the joy on the return of summer, which appears in English poetry from the time of Chaucer almost to our own. Thomson wrote of winter with one arm through a hole in the blanket, having betaken himself to bed as the only warm and comfortable place to be found. In our days winter gets its fair share of appreciation, just because we have become less dependent upon the direct rays of the sun, being at last actually able to warm our houses, and to shut out the drafts.

It is impossible to contemplate the past history of the house without feeling that the process of its development is by no means at an end. The modern house is far from being an ideal structure, whether we regard it with reference to the health or the comfort of its inmates, or its adaptation to the great social uses for which it exists. As in the past the stupidity of the majority stood in the way of its development on lines indicated by the best experience and the largest knowledge, so our natural conservatism and timidity still stand in the way of the application of our best means and appliances to the modern house. That house is not what it might be, if we were ready to give up our prejudices in favor of a more scientific treatment of the subject. We still pack our cities as closely together as though rapid transit had never been invented. Our homes are still unprovided with any form of mechanic force for fanning the heated air of our sultry summers or working sewing-machines and the like. They still are ventilated by sash windows, which were devised for the moderate summers of Northern Europe, although a casement-window would both serve as a more effective cooler and diminish the danger from drafts.

Our upper stories are still reached by stair-cases, as though the elevator never had been invented, or were not as applicable to a block of houses as to a great hotel or a large public building The proper activities of the house are still encumbered by such alien employments as cooking, which could be done far better outside the house than in it, and which no more belong to its proper function than did the spinning and the weaving, which once were heard at every fireside. While we go on in this slow fashion we have no right to wonder at the slowness of our fathers in adopting changes more radical and not more obvious in their necessity. We are the true sons of our fathers in this regard.

ROBERT ELLIS THOMPSON.

Chelten Hills.

On the Origin and Causes of Prices.

ECONOMISTS unite in saying that the prices of things are their money-value, and also that variations in value are caused by changed relations between supply and demand and by the cost of production.

Without questioning the truth of these principles, we propose to consider other causes which affect prices beside considering some which affect the supply of things wanted and the quantity offered for sale.* To go no further than to say, for example, that the price of coal has declined because the demand has lessened is not to cast much profitable light on the matter. The dealer in coal would like to know why the demand is less than formerly. If he can find out the reason, he will know better how to conduct his business; whether to offer his coal at a lower figure, or perchance whether he should retire from business. For three years the demand has been lessening and prices have been declining—a movement which has seriously affected very many persons. All are desirous of knowing two things; first, what causes have lessened the demand; and secondly, how long and how powerfully they are likely to operate.

It would be a large undertaking to ascertain and set forth all the causes which affect prices. Two classes of causes are always operating, permanent causes and temporary ones, but very generally business men and journalists do not thoroughly investigate the permanent causes which affect prices. They study with keen eyes the causes of the daily oscillations in prices, but overlook the less obtrusive yet more potent causes

* In Mr. Francis A. Walker's recent work on Political Economy some of the causes which affect the supply and demand of commodities are clearly set forth. Had he explored the whole field as carefully as the portion covered in his work nothing would have been left for other gleaners. We propose to make a brief excursion into other parts of the field not traversed by this justly eminent author.

perhaps which affect prices through longer periods. With respect to professed political economists, most of them do not make any investigations whatever; they are contented with speculating on a narrow margin of premises without inquiring much into their truth. This is why political economy is such a barren study. If economists would adopt a different method and delve among the facts which lie within the realm of economic investigation, far more fruitful results would be obtained.

At the outset it may be worth while to inquire how prices originated? If we accept the authority of Sir Henry Sumner Maine they were fixed by custom. At the time when custom prevailed the primitive community formed the basis of society, and, of course, exchanges were not very numerous. Even now in the more retired villages of India the artificer who plies an ancient trade sells his wares for the customary price, and always prefers to change the quality of the thing produced to the price whenever a change in the one thing or the other is necessary. The members of the primitive community did not try to drive the hardest bargain possible, but a feeling of brotherhood existed leading to exchanges on equal rather than on the highest terms. They did not deal with each other as men generally do now; indeed, the idea of gaining wealth by exchange was then unknown.

This ancient rule of price was afterward supplanted by that of getting the highest price possible whenever exchanges were made. "The existing rule," says Maine, "originated in the market which was established between communities. These were neutral meeting-places to which members of the different villages repaired with safety, and where sharp practices and hard bargaining arose." Over this market the god Hermes or Mercury presided, who was the patron of trade, of cheating, and of thieves, and whose reign, so far as we can perceive, shows no sign of speedy termination. "From the markets, thus established, the notion," Maine remarks, "of a man's right to get the best price for his wares took its rise, and hence it spread over the world."

The prices determined in this way were very irregular, and fixed prices were unknown. This state of things yet exists in Palestine and in other Eastern countries. In Palestine one method employed by the seller is to begin his negotiations by making no charge. A traveller relates the following experience. A dragoman whose services were desired said that he would be well rewarded by the payment of a franc. This was no price at all for the eight days of service which he was desired to render. "On urging him to name a price, he put so high an estimate upon his valuable aid that we were compelled to forego the pleasure of his company. We found out that it was all a ruse. He was hoping to be offered our price, thinking it might be a large one, and was determined that if it did not suit him, he would then raise it as high as he might see fit." With the advance in civilization prices have become more and more regular. Many interesting facts are given by Roscher illustrating the converging of prices around fixed points and the gain to society from thus fixing them. With better and more general intelligence purchasers can judge better of the cost of things and of the price which they ought and can afford to pay. "Under a system of fixed prices we can more certainly discover what the equitable price is than in the heat of higgling. * * * Moreover, one of the principal requisites of a well developed scale of prices is national honor, and this, doubtless, increases in the higher stages of civilization, not only because of the greater moral culture which then prevails, but also and especially because that which constitutes a people's real and best interests is better understood."

Although prices vary less than they did in ancient times, yet even now they do not long remain unchanged. The prices of some things vary more rapidly and widely than the prices of other things; and again the same causes do not affect the prices of all things in the same manner. Retail prices are affected by different causes than wholesale prices; the wholesale buyer makes his purchases more intelligently, has a better knowledge of the market than the retail buyer. As men

engaged in trade say, the former class buy more closely. To treat the subject properly therefore commodities and buyers and sellers must be classified, and after this is done the causes which affect the prices of each class can be more clearly ascertained.

We would first classify the different kinds of labor. It may be divided into three classes; first, that which constitutes an absolute monopoly, like the musical power of Patti or Nilsson; secondly, that which forms a qualified monopoly, like the ability of an eminent lawyer or physician; and thirdly, that of the common laborer. Patti can go further in saying what the price of her services shall be than can either of the other classes. The third class have generally less ability to determine the price of their labor than the employers of Patti have in making terms with her. Indeed, it is quite near the truth to say that the price paid for the labor of most persons is not determined by any principle, neither by supply and demand, nor by any other. The employers pay what they like and the workingman must take the sum offered or starve. The books on political economy are full of lengthy discussions showing how wages conform to the operation of supply and demand, but if economists had investigated the subject instead of speculating about it they would never have deluged their books with the long misleading chapters on this subject which are found in them.

Commodities may be divided into two classes, those which form a monopoly, and those which may be produced without restriction. The former class may again be divided into those which are monopolies by operation of law, like patents, and others which constitute monopolies through the might of capital or combination, like refined petroleum or shoemaker's nails.

Transportation also is a subject the causes affecting the price of which may be profitably studied apart from those which affect the prices of other things. Likewise the causes which affect wholesale prices may be considered apart from those which affect retail prices. Other classifications might be made, but these will suffice for the present purpose.

Among the causes which are powerfully affecting the prices of many things at the present time is speculation. This cause is operative on all commodities bought and sold at exchanges. All persons who deal in such commodities are affected, though in varying degree. The buyer of grain on 'Change may be more seriously affected than the final buyer and consumer of it, or he may not be. The exact degree by which the original and final buyers and intervening purchasers are affected cannot be ascertained.

In modern speculation enormous quantities of grain, provisions, cotton and other things are sold which the sellers do not have and the first question to consider is, how do these sales affect the prices of existing commodities? In April, 1875, it was ascertained that there were twenty thousand bales of cotton in New York and thirty thousand in Liverpool, less than were supposed to be in those markets. Besides, the quantity received at Bombay, India, was not so large by forty thousand bales as it was during the corresponding week of the previous year. Of course, those who believe in the operation of the principle of actual supply and demand would have predicted a rise in the price of cotton in consequence of the discovery of a diminution in the quantity; but what did happen? As soon as the true condition of the cotton market was known speculators in New York sold forty-eight thousand bales to be delivered on a future day. The effect of these sales was to depress the market. The Liverpool *Daily Post* in commenting on the transaction remarked that it certainly did appear absurd with a diminution in the supply of nearly one hundred thousand bales of cotton in a week, there should be found men of sufficient temerity to sell forty-eight thousand bales on a single day for future delivery. But these sales had the effect intended, namely, to prevent a rise in the price of cotton. A rise certainly would have occurred had the principle of actual supply and demand operated. One might say that the operation of the principle was not reversed because the sale of the forty-eight thousand bales was in effect a new supply. But the

actual supply was not increased; the cotton sold existed only on paper. It is clear, therefore, that a fictitious supply, sometimes, if not always, affects prices. We may think that persons ought not to be influenced by paper products, yet they are, and prices move up and down accordingly.

Having shown that prices are affected by a fictitious supply and demand, let us next inquire how far they are affected by it. Sometimes the belief has been entertained that powerful speculators who had a vast amount of capital at their command could control prices very effectively. Says H. D. Lloyd in a stirring article in the *North American Review* on "Making Bread Dear, "The prices of the speculative wheat and the spectral hog of the Board [of Trade] fix those of the real wheat and the actual hog of the field. The negro planter of Georgia who raises his bale and a half must sell it for what the Cotton Exchange says it is worth. The man who works in the ground must take the price fixed for him by the man who works in the air. * * * * The manufacture of prices, like other modern industries, is being concentrated into vast establishments, and these are passing under the rule of bosses and syndicates. The markets, like political parties, are run by the machine. The people are losing the power of making prices. * * * * The greatest of these price factories is the Chicago Board of Trade."

Mr. Lloyd's paper contains many facts showing how speculators, by purchasing large quantities of grain and other commodities and holding them, have dictated prices to purchasers. Many more facts of a similar nature might have been added. Nevertheless, other facts may be given showing that the power of the speculator over the market is limited. Our readers will recall the great lard failure in Chicago last year. McGeogh usually had been successful in previous speculations, but he failed in this. Previously, he had been engaged in buying lard and "bulling" it, and then selling out. This time he sought to do the same thing, but could not move the price upward. Others were interested with him who resorted to every device

which a long speculative career could devise for enhancing prices. But in vain. There are times when the movement of prices is downward, and the combined power of capital, courage and wisdom will not stay the movement. It is not true, therefore, that speculators can always have their own way in "bulling" and "bearing" prices.

Within what sphere, therefore, can speculators act effectively? It may be answered that by creating a fictitious supply and demand they sometimes sustain prices at a higher figure than they would otherwise go. A very intelligent cotton manufacturer who watched the cotton market closely, told the writer several years since that for more than a year previously cotton had been at least a cent per pound higher than it would have been had speculation not prevailed in the markets. By sheer manipulation speculators raised the price this much and sustained it for the period mentioned. They dared run the price of "futures" up, and the price of "spot" cotton was affected by the movement. The manufacturers were obliged to pay, for they were powerless against the speculators in bearing the price.

It would carry our inquiry too far to trace out who were the gainers by this advance. It may be remarked, however, that the cotton growers did not get much of it, the speculators themselves and other middlemen gained most, the manufacturers who bought early profited by the advance, and the consumers and other manufacturers were the losers.

At other times speculators drive prices down considerably lower than they would otherwise go. The truth of this remark may be tested and verified by changes in the market at the present time. Fictitious supply and demand by overbalancing actual supply and demand may temporarily reverse the prices that would be given if only the actual supply and demand existed, but cannot do so permanently. If any one doubts the truth of this deduction let him ask the operators for a rise who have failed to stimulate prices. The prices of many things have been reduced without reason, and is the result of specu-

lation. In other words, if the elements of speculation were out of the market to-day, more confidence would be shown in most kinds of business and prices would be steadier and higher.

The extent to which the price may be deflected by speculation or the operation of a fictitious supply and demand, cannot be stated. It depends on the boldness of speculators, the amount of their capital and credit, as well as on the nature and strength of those opposed to them. For it must be remembered, that in every speculation there are two sides, one operating for a rise and the other for a decline. Nevertheless, an authority worth quoting in discussing the operations of the cotton, produce and other exchanges in this country says that "speculative transactions regulate the market." Another who has carefully studied this subject for many years has written that "if the game between speculators were always honestly played there would still be some faint connection with actual values: the side having the most money would, of course, make prices at its pleasure, as now, but the most money would be likely to be on the side best justified by conditions of demand and supply. A market of that sort does not suit modern operators however. Just as it is practically impossible to find gamblers who will play a perfectly fair game, so it comes to pass in every market where dealing in phantom stuff is tolerated that the gamblers begin to mark the cards and load the dice against each other. Tricks are employed, falsehoods are circulated, production is manipulated to suit the schemes of the gambler, and the strongest and most unscrupulous combine to fleece the rest. This is not a market. It is merely a great gambling shop. Its existence is not helpful to any honest business, because no producer or dealer can form any opinion what his actual product may sell for at any future time."*

When speculators are successful in making a "corner" they fix prices to please themselves. What a corner is may be

* W. M. Grosvenor.

briefly described. Those who are interested in "running" it buy a quantity of the commodity which they propose to corner, to be delivered at a future day; wheat, for example, two months hence. Their next step is to purchase all the wheat in the market with the view of preventing those who are to make deliveries at the time fixed from obtaining a supply. If the cornerers succeed, the sellers will not be able to get the grain they contracted to sell, and consequently are at the mercy of the buyers. In other words, the cornerers have created a monopoly in wheat by buying up all that can be obtained, and are, therefore, able to dictate the price of the grain to those who agreed to sell it to them. When a corner is successfully run, not infrequently the price is enormously increased.

But while the corner is running, prices are deflected from what they would be if nothing of the kind were attempted. As already mentioned, after making their contracts to buy grain to be delivered at a future time the cornerers buy as quietly as possible all the "cash" grain, that is, all that can be had. But, of course, new supplies are coming forward, and it is necessary to buy these in order to keep the market bare. To do this higher prices are often paid than would be the case if no persons were engaged in cornering the market.

Now when we consider how largely men are engaged in trying to run corners, indeed this constitutes a large part of the business of the produce exchanges, we shall form some conception of the influence of speculation on prices. We shall also understand how the ordinary explanation of supply and demand fails to account for the prices of many things, especially those which are bought and sold at the organized exchanges. One of the great changes in modern trade is the organization of exchanges and the cornering of products. A leading object in organizing exchanges is to accomplish this end. An exchange is the peculiar instrument for running corners. They have been felicitously termed "price factories."

Speculation affects sales by hastening or retarding them.

Millers, for example, if they suppose that a corner in wheat is to be run will make larger and earlier purchases than they would if having no fear of such an event. They may pay more than they would otherwise, in order to obtain an abundant supply. On the other hand, speculators may depress the price of wheat and compel millers from lack of capital or other cause to hold it to sell their flour sooner and at a lower price than they would if speculation in this product did not exist.*

Finally, speculation frequently enhances the irregularity of prices. Of course, there are many causes in operation to vary them, but speculation has often been a potent cause. It is contended that the effect of speculation is the reverse of this, to steady them and doubtless this is sometimes true, but usually the case is otherwise.† There is no rational cause for many of the variations noted from day to day and they are the result solely of manipulation. The manipulation of the price of grain has been attended with the most serious results, for it has led foreign purchasers to look to other markets for their supplies, and the price of grain here will be permanently lowered. The cultivation of wheat in India has been greatly stimulated by the manipulation of the American market. By stimulating the people of other countries to cultivate grain and thus widening the market, the speculator has proved the

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*A witness examined by the committee appointed by the New York Legislature in 1883 to investigate the cornering of grain and other articles said, with regard to the effect of speculative trading on millers, "they were injuriously affected, because the laws of trade were set at defiance and they were at the mercy of these men as to prices, and they don't know when to buy and when to sell; the miller cannot safely buy wheat and send flour here, subject to sudden and arbitrary changes in price. It is very difficult for him to do business: these speculators usually send out their agents to all the towns where there is any market or mills; I have seen them myself buying for these people in New York, buying at the doors of the millers and in competition with the millers; it ruins the milling interest of this country and all legitimate trade both in wheat and in flour."—*Testimony and Report, page 90.*

† See Crump's *New Departure in the Domain of Political Economy,* (p. 50)

worst enemy to the American wheat grower that has ever appeared.*

It is true there is an equalizing movement, perpetual and unknown in former days, which however is not caused by operations of the speculative class and exchanges, but by the establishing of quick means of transit and communication. The days of swift runners are over. The world has no more business secrets. "No Rothschild will ever again make a fortune over a battle of Waterloo. Any important incident is immediately and simultaneously announced on the exchanges of both hemispheres; stocks afloat and ashore are known and watched from hour to hour. There is no one mart, no one market, which rules the world's trade. Prices follow each other around the globe from east to west. This changed order of things has rescued all and every branch of trade from the grasp of any possible

*Another witness before the New York Legislative Committee, to which we have referred, said that "anything that creates an artificial value of an exportable article is disastrous to the commerce of the country; we should do everything to increase our volume of exports, and if we create an artificial value of wheat—twenty-five or thirty cents a bushel—over its real value we injure our export trade very seriously. We had corners here some five or six years ago and we drove the trade from us; we get up prices to an artificial height, then foreigners leave us to go elsewhere to supply their market, and finally we have to sell produce at a lower rate, whereby we lose very much ultimately." He then gave a history of the Keene syndicate which was formed in October, 1879, to control the price of wheat. It was supposed that several foreign countries which usually produce large quantities of wheat had lost a large portion of their crops and that the syndicate could control the wheat markets of the world. The price was run up to $1.65 for future delivery, but the next Spring it was found out that the crops of the world were much larger than the estimates formed by the syndicate "and the result was that when June came wheat went down sixty cents a bushel from its highest point, resulting in a very great loss to the milling and farming interests, because nineteen farmers out of twenty will not sell wheat on a rising market; they held it for still higher prices, and got left with a large reserve on hand, at an average loss of thirty cents a bushel to those who held; the loss of the milling interest was very great, because the price was so unduly stimulated and worked up by artificial causes that the millers when they came into the market found there was a large surplus of flour on hand—and a loss of three dollars a barrel was submitted to after it was found that the surplus of the world was more than adequate to its wants," (page 144.)

monopoly or combination."* No error is more common than that of ascribing events to wrong causes, and an error is committed whenever the equalizing of prices is ascribed to speculation. The new agencies of transit and communication render speculation more and more difficult; if these did not exist fluctuations in prices in consequence of speculation would be far greater than they are now.

It may be further remarked that speculators forecast the future, and affect present prices by the prospective situation of things to a far greater extent than persons did before the organization of exchanges. It is true that prices at all times are affected not only by actual supply and demand, but also by the prospective supply and demand. The latter influence may be greater at one time than at another. The effect of short crops, fire, flood and other agencies is exaggerated by speculators to an enormous degree.

Another cause which affects prices is the insolvent condition of sellers. The merchant who is nearest the edge of bankruptcy makes prices for others who are engaged in the same business. Not the strongest houses, therefore, that are engaged in trade always exercise the most control over the market, but sometimes the weakest. This is especially the case in a time of depression, and when business is transacted largely on credit. The great leather failures in Boston last year illustrate this truth very perfectly. The largest of them had been buying hides for a long time at too high a figure and selling the finished product at a rate correspondingly low. It was well known throughout the leather trade that this concern was paying more than it could afford to pay for hides and selling leather at a loss. This judgment was based on their own experience. But why was such a ruinous policy adopted and maintained? The concern owed a very large amount of money, and it was necessary to keep their tanneries agoing. To stop them was sure failure, to sell at a loss was sure failure, too, if

* The Statist, June 7, 1884.

long continued. The concern continued to do business in this way hoping, of course, that the tide would turn and their business yield a profit. But so long as they continued to sell at a loss others were obliged to follow or to stop; no other alternative was presented. When, therefore, this concern and several others more or less connected with it succumbed, their failure was generally regarded as a relief to other leather houses, because they felt confident of buying hides at a lower rate and selling the finished product at a higher price than before.

It is generally thought that the wealthiest manufacturers and exchangers, and whose business is the largest, exercise a powerful influence in determining prices, and doubtless they often do. Yet their influence is not so powerful as is supposed for the reason just given. In a time like the present, when the buyer has a very wide control of the market, the influence of aggregated capital has a very small influence on prices. The buyer, and the manufacturer or exchanger who is deeply indebted and must sell in order to raise money to pay his constantly maturing obligations has a far greater influence. Not the strong, but the weak at times like these make prices.

It may be asked do not the larger concerns by destroying the weaker through competition make prices? This is sometimes the case, especially where the competition is limited to a small number of persons. But in the business of manufacturing and selling leather for example, such a principle does not apply, because so many are always engaged in it that competition never ceases and the persons thus engaged who are in debt and under pressure to sell are never wholly eliminated.

Sometimes insolvents, or persons who are anxious to realize on their goods make prices for the market by selling through the auction house. The sales effected in this mode are of two kinds however which should be distinguished from each other; those which occur periodically, and irregular auctions. There are a great many of the former kind. Coffee is sold at auction three times a year at Padang, the chief port on the island of Sumatra. Wool is sold in this way several times a year at

London. Hides and a great variety of coarser goods are thus sold in the English markets. Within a year enormous quantities of dry goods have been sold at auction in New York. The same thing occurred after the business depression began in 1873. When an auction is irregular, lower prices are received than would be if sales were made privately. But at regular auctions as high prices are obtained, or nearly so, as would be at private sale, and in some cases higher. Buyers know why goods are offered at irregular auctions, either because there is an excess of them, or because sellers are desirous of turning them into money. Consequently, as soon as business improves irregular auction sales to a great extent cease. But while existing they are powerful agencies in establishing the prices of goods. At the present time these sales are frequent, and jobbers knowing that they are likely to occur, are careful about making purchases of commission houses and manufacturers. They know that at auction sales goods generally bring a lower price than when sold through the usual channels. If therefore A determined to buy in the regular way and B should make purchases at auction, B would have an advantage over his rival, for, buying at a lower rate, he could afford to sell at a lower one. If A buys of a commission house he must seek to get a concession on the regular prices, and the commission house on the other hand, anxious to sell and knowing that if concessions are not granted, A will wait and buy at auctions, or make only small purchases, reduces prices. So when auctions are frequent they are a constant menace to regular trade; they are open enemies, powerful rivals, whose business consists in selling whatever the price may be. They consequently exert the same influence on prices that insolvent or forced sellers do, in some cases perhaps a stronger influence because their sales are not restrained by any considerations of price. They are determined to sell, whatever may be the consequences to the market. Their influence in determining and controlling prices is well known by persons who are engaged in selling similar goods. They cannot do otherwise than to

follow on, to make concessions until these dreaded modes of forcing sales shall cease.

Transportation is another cause which affects prices. This cause is becoming more potent for the reason that the transportation companies are abandoning the former modes of classifying freight by weight, difficulty of handling, risk of carriage, etc., for a mode based on the principle of profit to the shipper. In other words, the new principle consists in charging what it is supposed the freight will bear. What is the effect of charging by this principle on the price of the goods transported? No one probably will dispute the generalization that the shipper will endeavor to add a part or all of the price of the freight to the goods transported. But he cannot always do this. When he cannot, the freight must be deducted from his profits. Not very long ago a firm in Chicago began to send dressed beef to the East in large quantities. It fell under a special classification. The shippers of cattle were alarmed at the rate given. They clearly saw that if the rate was not changed the destruction of their business was seriously threatened. There was great economy in shipping only the eatable parts of the animal, and accordingly the price of dressed beef could be furnished at much lower rates. There were other economies and desirable features connected with the transportation of the beef that need not be mentioned. The managers of the trunk lines of transportation early saw the probable effect of the change on their revenues. They forthwith changed the rate, basing it on the supposed profit to the shipper. Who paid the increase? It is to be presumed that when the shippers first fixed the price at which they would sell their beef to Eastern buyers, they took account of the cost of transportation. But when the rate was raised, the shippers, so we are informed, did not change their prices, consequently, the increase was drawn from their profits. They were losers to the extent of the increase.

The relation between the shipper and the transporter is not unlike that of the landlord and tenant. If the charge be more

than the tenant can make on the farm, the landlord cannot get his rent unless the tenant has a separate fund from which he can pay the deficiency. On the other hand, if the landlord reduce the rent it does not follow that the tenant will sell his products any cheaper than before; he may, and probably will, put the difference in his pocket. If the tenant cannot earn the rent demanded, of course, the landlord must diminish it, or suffer it to go unpaid, for the tenant cannot pay more than what he has. The question with the landlord is whether he shall take all or leave something for the tenant. The transportation companies possess a very similar power. They may charge so much as to leave only a very small profit, or perhaps none at all to the shipper, or they may make the rates low enough to leave a large margin of profit to the shipper. Of course, they cannot take more than the entire amount of profits, for if they attempted to do this, shipments would cease. There is however in many cases a wide margin.

If the rate is paid by the shipper, then we see the ultimate limit that may be charged, namely, the entire amount of profit. Up to this limit, the transporter can exercise great power. But if the rate is thrown on the product then of course the question is what will be the effect of the addition on sales? Will they be curtailed? If they will be, then the shipper may lose from inability to dispose of his product, and the transporter from not having the freight to carry.

Just now this question has transcendent importance with respect to the shipment of wheat. We have a large surplus, but our power to dispose of it depends almost wholly on the cost of transportation. India is becoming the granary for England, and we can send but a small portion of our surplus there unless it can be offered at a lower figure than is paid for India wheat. Whether we can or not depends on the railroads. The present rates for transporting it are one half a cent per ton per mile which seems astonishingly low. A few years ago the rate was twice as much. But it is said by those who know that the railroad companies can carry it at a profit for even a

quarter of a cent per ton per mile, and that, if they will adopt this rate the Western farmer can successfully compete with the wheat grower of India.

Not long ago the cotton manufacturers of New England and dealers in their goods in New York asked the railroads which carry them to the West to apply this principle. They said that in consequence of sharp competition on the part of the South aided by very favorable rates on Southern products when sending them into the Northwest similar goods could not be sent from New York to the West at a profit. It is worth noting that while one of the principal Southern lines classifies Northern goods shipped to the South as first class freight Southern goods of precisely the same nature are shipped to the North and West as fifth class freight which pays about half as high a rate. The fate of the Eastern manufacturer and dealer therefore depends on the action of the transporter. If the rates are reduced goods can be shipped to the West and sold at a price which will pay for their shipment. If, however, the transportation companies determine that all things considered they will lose more than they gain by altering rates, then the shipments must decline or wholly cease. As in the former case, no rule can be evolved to guide either the transporter or the shipper. But the fact that the transporter is an important factor in the problem is made clearly apparent Each party will, of course, be guided by his own interest regarding it from a short or long range.

Another illustration illustrating still more forcibly the omnipotence of the transporter in determining prices is in the transportation of sugar. After the reciprocity treaty with the Sandwich islands went into effect Claus Spreckels began to refine sugar on the Pacific coast. He made contracts with the Pacific Mail Steamship Company and the railroads running to California whereby the rates for carrying sugar from the East were so much advanced that the business became unprofitable for Eastern refiners. The transportation companies were paid a sufficient sum, unknown to the public, to induce them to

make such an arrangement. The rate for transporting sugar was fixed so high that no Eastern refiner could transport and sell sugar at a profit farther west than Denver.

From good sources we have also been informed that on the Texas-Pacific railroad rates are so high that only the most profitable mines will pay for working. The transportation company fixes rates on the principle of charging the most the freight will bear. Lower rates might lead to a more rapid development of the country, but the rates are fixed on the supposition that they will yield the largest gains to the company. Thus the future of that section of the Union for no one knows how long is within the keeping of a railroad.

We should not leave this branch of our subject without mentioning another principle affecting the price of freights which is of great importance. As the insolvent dealer and the auction house often fixes the price of goods so does the bankrupt railroad often fix the price for carrying freight on competing roads. Suppose the New York Central Railroad has issued $40,000,000 of watered stock, can the shipper of freight be charged enough more to earn dividends on this amount of water? Not if competing railroads object. The Erie railroad has been more potent in making prices for the several East and West trunk railroads than any other of them because it has not tried to earn dividends on stock, and because it has been managed by peculiar principles. During a considerable portion of the year however the Erie canal is the principal regulator of freights. To its rates the New York Central must conform in order to get through freight without regard to its capitalization or cost of transportation. In the joint letter of Messrs. Vanderbilt and Jewitt addressed to the Special Committee on Railroads of the New York Assembly in 1879, they said: "Competition fixes rates without regard to the amount of any company's stocks or bonds. The five lines from Chicago bid for traffic, and no one line can procure any part of it, except at the price made by the cheapest route. Thus the sum which the company can net from the business is the same,

whether its capital is large or small; if too great, it is the sufferer in diminished dividends." And elsewhere they said that "by reason of this competition, rates are governed—after allowing for so much as the article to be carried to market will bear—purely by the figures any one of these rivals may choose to fix, and the traffic will go by the line that carries at the lowest figures, irrespective of the capital of any railroad."

While railroads in fixing the prices for transporting freight are governed largely by the conduct of rivals, it is also true that they sometimes give advantages to one shipper over another. In this way a wrongful advantage is gained by some shippers which is the subject of just complaint. The largest shippers get the lowest rates usually; their business is so extensive that the transporter is willing to make a reduction from the regular tariff in order to get or to retain it. Of course the advantage thus obtained enables the shipper to undersell his less favored rivals; and take away their trade. This is why they complain so bitterly of cutting rates. The more uniform they are the more perfectly is competition maintained among sellers. Their complaint over high rates is not so loud and frequent as over uneven rates. From these do they suffer most.*

Let us now briefly inquire what is the effect on prices of diminishing the number of intermediaries between the producer and consumer. This is a large topic and we can not say much in this place. Does the consumer get what he wants at a lower price? Not necessarily. If the manufacturer skips over the commission merchant and sells his goods to the jobber, will the consumer finally get them at a lower price? He may;

* "Grain freights, which are considered a sort of index to all others between America and this country," says the London *Timber Trades Journal*, "have presented some curious anomalies this season. In April, when there were 3d. per bushel from New York to London, the charge to Liverpool was 1½d. per bushel: now 4d. per bushel is quoted to Liverpool and to London 2¼d., the longer distance being done at above 40 per cent. less than the shorter, or 13s. 4d. per ton to Liverpool and 7s. 6d. to London. In proportion to other cargoes, timber freights on the Atlantic side may be said to have maintained their ground extremely well."

and he may not. It is a safe generalization that the manufacturer and jobber will try to absorb the profits of the commission merchant. With the simplification of the machinery of trade which is now going on in a very remarkable way, it would be a hasty conclusion that the consumer is likely to reap a large immediate benefit. If a manufacturer introduce some process whereby he can produce goods more cheaply, he will regard himself fortunate because by selling at the old rate his profits are enhanced. Have the consumers of coal profited in consequence of the purchase of the coal mines by the transportation companies? No one can tell what the prices of coal would have been had the railroad companies acted simply as carriers. At the present time there is a general outcry in Europe that notwithstanding a decline in the price of wheat to the lowest point reached in this century, bread is as dear as ever. The bakers and the millers are the gainers by the greatly increased abundance. Bread is selling in London at four cents a pound, at which price the miller and baker make a profit of three hundred per cent. In some places in the Southern part of England the same quality of bread is sold for not much more than two cents a pound, yet at that price the baker gets a good profit. "These extortions of the trade," says a recent writer, "should astonish no one when we take into consideration the fabulous prices which are paid for tea, coffee, sugar and other articles of first necessity at retail, and the unprecedently low prices at which they are sold wholesale. Tea, for instance, sells at auction in London at about twenty cents a pound, and cannot be bought at retail at less than sixty-five cents.*

* "Now that manufacture is carried out on so vast a scale, and competition is making havoc in business profits, as they were, it is understood that both in England and the United States capitalist producers are protecting themselves by reverting to the system which we have described and getting rid to the utmost of their power of these intermediate dealers. The instantaneous communication through the telegraph of prices in the most distant markets has mightily aided this independence. In England the competition of capitalists is very keen. The wages of labor in the generality of trades are very high, and it stands to reason that if the employer can get rid of some services hitherto considered valuable and

We think the following principles may be fairly deduced on this subject. Wherever competition exists the cheapening of production and transportation, and the simplifying and cheapening of the process of exchange, will be followed after a time if not immediately by lower prices. But wherever a monopoly exists the question of cheapness of production, or transportation, or exchange, may not necessarily affect the price to the consumer, but go to enhance the gains of some or all of the persons before him. The producer may take the whole of the gain in the way of increased profit, and in many cases he does take it. Or, he may take a part, and the transporter and exchanger may gain something. Finally, the consumer may derive to some extent a benefit from the greater economy of production. The price, however, may be regarded from another point of view by the monopolist. He may think that his profits would be greatly enhanced by reducing prices and stimulating sales. This course is often pursued.

Next may be considered how taxation affects prices. At the outset it may be remarked that the usual kinds of taxation affect prices in different ways. The taxation of imported whiskey, for example, affects its price in a different manner from the internal taxation of the same article.

The theory is entertained by many writers that land and it alone should be taxed, because it can be seen and there is no possible evasion of the payment of it. They maintain that if a tax were imposed the occupiers would add it to the price of their products and in the end it would be perfectly dis-

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even necessary that he can afford to pay better terms to manual labor. A house with considerable China trade twenty years ago had to employ a dealer in Liverpool or Manchester as a go-between, and this dealer employed a shipper who had further transactions with ship-owners. When the goods reached China another set of agencies was called into existence, and, of necessity, a charge was levied on the goods at every stage of the process. Now the same house has its branch at Canton or Shanghai and transmits its goods without employing a single intermediary to the depot at the Chinese ports. By these economies it keeps up its old profits. But it is well understood that were the old agencies employed, they would make no profit at all."—*Bradstreet's*, Jan. 12, 1884.

tributed through the community. This theory has the great merit of simplicity, and is therefore greatly admired by that class of economists whose outfit consists of a collection of a few simple principles. Now whether a tax imposed on land will diffuse itself and finally appear in the form of an increased price to the products raised thereon depends on many things. At one time during the depression of 1873 a leading New York paper favored an increased tax of real estate on the ground just mentioned. At that time, rents were falling. Suppose the tax had been laid, would the tenant have paid it? Certainly not. He could not pay the rent that was then demanded, and concessions were constant. No economic prediction could have had less basis of truth than that such a tax would be added to the rent, paid by the tenant and thrown off by him on his customers. But suppose such a tax had been imposed in 1880 when rents and the prices of things generally were rising? The landlord might have added the tax to the rent and the tenant have recouped himself by charging more for his goods.

A few years ago Congress determined to make a beginning in the way of providing a free breakfast table. The duties on tea and coffee were removed. Eighteen millions of revenue were cut off. How much did the consumer of tea and coffee gain? The saving has been so small that no one has ever been able to ascertain the amount. But did not somebody gain? Of course. That year the production of coffee was smaller than usual, and the grower added the duty to the price of the product. Neither the importer nor any other class of intermediaries gained much of anything. The price of tea was slightly reduced, but the intermediaries gained far more. Had the tax been repealed at a time when the coffee product was abundant, very likely the price to the consumer would have been reduced, though probably no one will question the assertion that, in any event, all the persons through whose hands it passed would have sought to profit by the reduction as largely as possible.

Last year the internal tax on tobacco was reduced. One-half the tax on cigars was thrown off, in other words, the tax was reduced from six dollars per thousand to three. As soon as the law went into effect the question arose, who should gain by the reduction? Many who regard society as working by fixed principles concluded that the consumer would buy his cigars at a corresponding reduction. With them it was a very simple question of mathematics. But how did the reduction operate? The cigar makers throughout the country thought that they had been the worst oppressed of any class and that now was the time to mitigate their miseries. They promptly told their employers that they ought to have two dollars more a thousand for making them. Some makers demanded a much larger advance. This was granted, and the consumer pays the old price. If any reduction has been made since, it is the result of the operation of other causes and not to the repeal of the tax. With respect to plug tobacco on which the tax was reduced eight cents per pound dealers reduced the price five cents, though some manufacturers advanced the price of tobacco equal to the tax reduction.

A large number of illustrations might be given to show the effect on prices of adding or removing taxes, but these must suffice. The old doctrine that if a tax is imposed on land it will be thrown on to the product and thus diffuse itself among consumers is one of those so-called economic laws, the application of which has contributed so much to degrade political economy among men who are familiar with economic facts. The effect of taxing land, or of increasing the tax thereon, varies with time and place and other causes. The illustration given shows clearly enough what would be the effect on land in a city during a time of depression. The same thing would happen if the tax on farming land were increased at such a time. No more could be obtained for the product. But it is not less true with respect to some farming lands at other times. Suppose the New York legislature should in years of ordinary business prosperity increase the tax on real

estate generally, what would be the effect? The owner of real estate in the cities might ask more of his tenants and get the increase, and they in turn might recover it of their customers in the way of enhanced prices, but could the New York grower of grain do this? Certainly not. Either the price is fixed by the speculator or the persons who live furthest West and who produce grain the most cheaply. The great farmers on the Northern Pacific have a much more complete control of the price of wheat. Compared with him the New York grower sinks into insignificance. A legislature that should impose a tax on such a theory would be guilty of confiscating the property of the taxpayer, for he would be helpless.

What therefore is the effect of increasing or reducing a tax on land on prices? If a tax be increased, is it paid from profits, or is it added to the price of the products raised on the land? We have partly answered this question. We have shown that if a tax be increased during a time of declining prices the tax is paid from profits. The landlord cannot throw the increase on his tenant because he is paying all that he can afford to pay. If the owner be the occupier he cannot add the tax to the price of his products because their price is already shrinking. He must therefore pay the tax himself. But if prices be rising, the landlord may throw the tax on his tenant and he in turn on the buyer of his productions whatever they may be. But an important qualification must here be noted. The prices of products of land subjected to higher taxation cannot be increased wherever they compete with other products the prices of which have not been increased. And whenever a tax is raised in such a case it must be paid from profits and cannot be added to the price of products. The taxpayer will try to throw the burden on others if he can, but in a time of declining prices, or when competing with others not subjected to the same burden of taxation the repercussion of the tax is impossible; he must pay it himself. This is another illustration of the fact which we have been trying to elevate to its rightful and important place that price-making is the outcome of complex conditions, many of which are quite beyond

the control of any class of persons, nor can these conditions be equalized or subverted by superior intelligence or greater capital. The wheat growers of New York however rich and intelligent they may be cannot buy up all the wheat in the country and raise the price in order to escape the burden of an increased tax. If laid they doubtless would be very glad to do so, but the undertaking is too vast. There is no escape from paying it themselves.

If these deductions be correct, the states should exercise greater care than they do in increasing taxes. They should realize what a serious business it is to tax industries and property of a competitive nature. The railroad companies have not been slow to show the danger of subjecting them to state supervision with respect to rates unless other states in which competing lines exist are subjected to similar supervision. The danger which they so clearly perceive overhangs all the landed property in the Union.

If we turn from the taxation of land to that of commodities, either imported or produced here, and seek to find out what has been the effect of repealing and imposing taxes on prices we shall find varying results. Whenever taxes have been repealed or reduced consumers generally have been the last persons to derive a benefit, and not unfrequently have derived none at all. The foreign manufacturer or producer, or the importer, or a subsequent middleman, or all of them have been the gainers. Sometimes prices have been reduced for the purpose of destroying competition and when that end was effected they have been raised. Whenever taxes have been laid or advanced, those who paid them in the first instance have sought to throw them on others, and in many cases they have been passed on to the consumer. But this has not always been the case. An examination of our history on this subject shows that whenever the taxes have been increased in dull times the importer paid them, when there was a sharp demand for goods they have been thrown upon the consumer.

We have now considered some of the causes affecting prices; it would be interesting to show how they are affected

by competition and monopoly, by credit, by a varying quantity of money, but we shall consider only one more and that is the element of faith. We know there are times when the faith of mankind in everything and everybody is strong, and then enterprises are rapidly launched and energetically pushed forward to completion. Capital is everywhere abundant, and new demands arise for all kinds of materials and service. Prices under such favoring skies advance. This faith is founded partly on reason, and partly is baseless. But its effect on prices is marked. And then follows a change. The faith of mankind dies away and the wrecks of stately industrial enterprises are seen stranded on every shore. Faith is equally unreasonable in ebbing so low. But its effect on prices is sometimes very disastrous.

This faith element has a mental, moral and physical basis. A man to-day may regard a certain railroad enterprise in a hopeful manner, to-morrow his feeling may be changed, and yet no new light has flashed on him during the interval. The enterprise and its surroundings are the same, but the man has changed. The prices of many things to-day are unreasonably low; three years ago they were advanced to an equally unreasonable point. Neither demand nor supply, cost of production, nor other material cause can account wholly for the change. It is in part a mental and moral one. This is always operating to some degree on prices. From the same series of facts different opinions are formed from day to day. Though always operating on prices, and often in a very marked manner, especially at the present time, no cause affecting them is perhaps so much overlooked. A more minute investigation of it as well as many others not even mentioned, would yield important results. Even the metaphysician and the moralist who have so often wandered in the economic field with little serious thought and no inclination to pursue the only method possible to acquire useful knowledge, might find in investigating the effects of this element on prices a congenial employment of his powers.

ALBERT S. BOLLES.

The Public Economy of the Commonwealth of Pennsylvania.

A CONTRIBUTION TO THE STUDY OF COMPARATIVE FINANCE.

THE question as to the true functions of the state and the proper limits of government interference has been keenly and widely discussed for the last century, both by theorists and practical statesmen. There have been two parties struggling for the mastery, both in science and in politics—the one striving by every means in its power to extend the sphere of state activity, the other endeavoring as strenuously to confine that activity within the narrowest possible limits. The one party looks mainly to the good that may be accomplished by an enlightened and powerful government working in the interests of liberty and progress; the other, on the contrary, regards chiefly the evil that has, as a matter of fact, been done by ignorant and despotic governments even when they have honestly desired to do the best they could.

The general prevalance of the latter view, for a time, at the close of the last and at the beginning of the present century, did the world a great service by dealing a death blow to the old "police state" of Frederick the Great and Louis XIV., which blocked the way to all reform and all progress. But the attempt to justify on theoretical grounds a purely negative and *laissez faire* policy on the part of the state was a hopeless failure. One principle after another was advanced, only to be given up after the easy proof that some of the functions deemed to be necessary by the very authorities advancing these principles could not be subserved under them. The result of the whole discussion has been very well put by one of

the keenest thinkers of the age* in the statement "that it is hardly possible to find any ground of justification common to all those functions of government which are admitted by common consent to be necessary or desirable except the comprehensive one of general expediency, nor to limit the interference of government by any universal rule, save the simple and vague one that it should never be admitted but when the case of expediency is strong." The same author says, in another place, that "the ends of government are as comprehensive as those of the social union. They consist of all the good and all the immunity from evil which the existence of government can be made either directly or indirectly to bestow."

As a matter of fact, the drift of events, both in science and politics, in all our modern civilized nations, is steadily and resistlessly toward a wider and deeper participation of the state in the life of society through the medium of government interference. Whatever we may think of the tendency, whether we regard it as good or evil, we can hardly deny the fact. The state is assuming new functions or extending the compass of those already in its hands. It has undertaken the provision of education in all departments for its citizens, and the course of events is toward free education. It builds almshouses for the poor, hospitals for the sick, asylums for the blind and insane and idiotic. It protects the laborer against his employer, the wife against her husband, the child against its parents, the community against itself, the brute against its owner. It has gone even still farther. It compels, in certain cases, the laborer to ensure himself against accident, it provides him an opportunity to invest his savings, advances him the means to buy property, inspects the house which he thinks of occupying, to be sure that it is safe, and even erects dwelling houses for him to live in. It reached over into the great sphere of industry and commerce, and extends its promoting and furthering care to all their various branches. One after another of the great

* John Stuart Mill.

means of communication comes within the sphere first of its aid, then of its inspection, and finally of its control and ownership. It has seized the post-office, the express business, the railroad, the telegraph and the telephone. It has gone still further. It undertakes to furnish light and water to its cities free, and to its citizens at a moderate price. It paves the streets, removes the ashes and garbage, establishes museums and theatres, swimming baths, and public parks and gardens. It even goes to the extent of regulating the food and drink of its citizens.

This rapid increase and great extension of public functions is common to all modern civilized nations, though it has been more rapid and complete in some than in others. To understand fully modern financial history, one must not lose sight of this fact of the ever widening sphere of state activity, and he who would construct a rational and practical system of finance must ever keep in view the necessity of elasticity (*i. e.*, power to answer readily to increased demands) as a prime condition of any such system.

If one wishes to comprehend fully the financial system of any country, it is necessary to get a clear idea of the sphere of governmental interference, to ascertain definitely what are considered as public functions in the economy of such country. If it were possible to get a trustworthy statement of the total public expenditure of a nation with the purposes for which it is made, it would be easy to prepare a summary of the actual functions of government in that nation. This, however, it is unfortunately almost impossible to obtain in the present state of statistical knowledge.

Now the distribution of public functions among the various forms of local and general governments determines the distribution of public expenditure, and it is the distribution of public expenditure which determines the form and compass of the financial system. That is to say, the more functions any given public body has to perform the greater will be its expenditure and consequently the more comprehensive and complicated

must be its system of finance. In order therefore to get a clear idea of the organization of the financial system of any nation it is necessary to be fully acquainted with the distribution of public functions in the national economy. The distribution of such functions is very different in different countries, and any comparison, therefore, of the national expenditure of different nations which does not take account of the above fact is almost worthless.

Suppose, for example, we desire to compare France and the United States in order to ascertain which country bears the heavier burdens of public expenditure. If we adopt the plan which is ordinarily taken, and compare the expenditures of the two national governments, respectively, we shall find that in the year 1881 the estimated expenditures of the French national government were over $600,000,000, with a population of 38,000,000, while the estimated expenditures of our own government were only $260,000,000, with a population of over 50,000,000. It should be said that counting the payments on the debt our expenditures were much more than the sum given above. Now, taking our expenditures at $350,000,000 we paid $7 per head, while the French paid nearly $16 per head; *ergo*, concludes the ordinary statistician, the French pay more than twice as much as we do for the same thing. But a serious error is thus made. It is not for the same thing at all, but for many more things which their national government performs but which ours leaves to local governments or to private individuals—such as the care of prisons, police, public education, religion, etc., etc.

To make an intelligent and intelligible comparison, therefore, it is necessary to find the total expenditure of all public bodies, national, state, county, township, borough and district in the one country, and then compare it with the expenditure for similar purposes of nation, department, and commerce in the other, making due allowance also for those functions which are left to private care in the respective countries.

It is superfluous to say to those who have attempted to

make any such comparison, that the necessary data for it are not at hand; for, indeed, as is well known, many of them are not to be had by any of the agencies now at the disposal of private individuals or public officials. The following article is intended as a contribution to the study of comparative finance, and furnishes some of the data necessary in the study of that subject. The writer hopes to be able to add, at a later time, the supplementary facts which are necessary to a really complete picture of the financial economy he describes, and regrets his inability to furnish them at present, since they are being collected slowly and with great difficulty. The following pages present a brief account: 1. of the distribution of public functions in our nation; 2. the sources of revenue open to each of the various public bodies; 3. a presentation of the system of collecting taxes using the Commonwealth of Pennsylvania and its subdivisions for purposes of illustration.

In the distribution of the functions of government in our political system, the State stands midway between the Federal and local governments. The latter are strictly governments of delegated powers. For a short period at the close of the Revolution, the State may be said to have possessed all the rights of sovereignty, and to have exercised all the functions of government. Certain of those rights were vested by the Federal Constitution in the National Government, and along with them certain functions transferred to its sphere. By the State constitutions and laws that have been since adopted certain other functions were transferred to different forms of local government. The residuum of the rights of sovereignty remained vested in the State Government. The two extremes of our political system—the Federal and Local Governments—resemble each other, therefore, in one very important respect. In order to undertake the performance of any function they must be able to show that the power to do so has been expressly or impliedly conferred upon them by their constitutions or charters, and thus both differ from the State Government which may undertake any function which has not been

taken from it by transference to another body or by prohibition. The attitude of the courts, therefore, in passing upon the constitutionality of Federal and local action on the one hand and State action on the other is very different. In the former case only, such actions are constitutional and legal as are expressly permitted by the written instruments which define and regulate their powers. In the latter, all such actions are constitutional and legal as are not expressly delegated to other bodies or absolutely prohibited by the State Constitution.

To obtain a clear idea of the actual distribution of public functions in our political system, we shall begin with those bodies whose powers are determined by constitution, charter or statute law, and after examining their sphere of action we shall be better able to appreciate the functions of those whose powers are inherent and defined only by prohibition. There are in the Union thirty-eight States and eleven Territories. The Territories are under the immediate control of the Federal Government. Although the newer States have been formed either out of territory which was ceded by the older States to the Federal Government or out of that which from the very first belonged to it, having been acquired from foreign nations either by conquest or purchase, and may thus be said to be creatures of the National Government and their powers to have been granted by the same, yet since they have the same powers as the older States it will be convenient for our present purpose to regard them in the same light as the thirteen Original Colonies, which at a time when each possessed all the sovereign powers of a nation voluntarily found a union in which they ceded certain of the most essential rights of sovereignty to a central government.

The States are divided into subdivisions called counties. These counties are corporations with well defined powers. They are creatures of the State Government and their powers may be increased or diminished by legislative enactment or constitutional amendment. Their powers vary greatly in the different States. They are generally furnished with many of

the administrative powers of the State Government and their officials whether elective or appointive are generally also State officials. The division into counties is usually made by the State Legislature, though in many of the States at the present time the constitution provides that no county may be divided except with the consent of a majority of the legal voters thereof. In the Commonwealth of Pennsylvania the division and formation of counties is in the hands of the courts acting in accordance with the general law on the subject that the wishes of the inhabitants must be decisive, in so far at least as no change can be made without their consent.

In some of the States the county is the ultimate political unit, but in most of them the county is subdivided into townships. These townships are also corporations with certain powers and well defined relations toward the county and State governments. Their officials, whether appointive or elective, are also county and State officials. Such is the political constitution of the State of Pennsylvania. In our exposition of the distribution of public functions we shall begin with the ultimate political unit, which, as shown above, is, in the case of Pennsylvania, the township.

The division of the county into townships is made by the courts under the general provision that the consent of the citizens immediately interested must be obtained before any change in the existing conditions can be made. Townships have capacity as bodies corporate: (*a*) to sue and be sued; (*b*) to hold real estate and personal property (provided that such property be held only for the benefit of the inhabitants thereof, and only for such objects and purposes as those for which township taxes are authorized to be laid and for such other purposes as are expressly authorized by law); (*c*) to levy such rates and taxes as may be expressly authorized by law. In Pennsylvania, the townships are authorized and required to levy taxes for the construction and repairs of roads and bridges, for the establishment and support of schools and for the support of the poor; *i. e.*, the school district, the poor district and the

road district are coincident with the township. The functions, it will be seen, are few and simple, but they involve some of the heaviest items in the whole range of public expenditure. A portion, however, of all these burdens is borne by the county or State, or both. Thus, whenever a bridge is to be built which the township authorities regard as an undue burden on the township, they may apply to the county court for relief, and the court may in its judgment decree that the county shall construct and maintain the bridge. Public and private roads are laid out under the supervision of the county court; the former at the expense of the county and the latter at the expense of the individual benefited, the actual construction and repair being under the direction and at the expense of the township. In some counties, the support of the poor is a county, instead of a township charge, and in all counties a portion of the burden of caring for the unfortunate poor (insane, idiotic, deaf mute, blind, etc.,) is borne by the State, as will be seen in the sequel. All the school districts in the State, which maintain a school for a certain number of months in the year, are entitled to a proportional share of a State grant to public education amounting at present to something over a million of dollars, and in each county in the State a county superintendent or inspector of schools is paid by the State.

The above division is a normal one. The law, however, allows that new school districts may be formed, composed of portions of one or more townships by the decree of the county court on the petition and vote of the citizens, such districts to have the same authority in school matters as the township. It also provides for the transfer of the care of the poor from the township to the county in case the county commissioners desire it and the county court approves. If such transfer is not made, any four townships may unite to form a poor district which shall support all the poor within its boundaries.

The ordinary township elects assessors of taxes, supervisors of roads and bridges, overseers of the poor, directors of schools, treasurer of township funds, town clerk, auditors of

township accounts, constables and justices of the peace. Of these the first and last two are really county officials and so far as they receive compensation for their services are paid by fees or by the county. The others are all township officials and so far as they receive compensation are paid by the township.

Portions of a township or townships may be incorporated as boroughs or cities. They succeed to all the rights and duties of townships and receive additional privileges corresponding to the greater and more varied necessities of a denser population. They are empowered to have more officers and have authority to support school, poor, police, fire, water, gas, market, health, and highway departments. For county purposes they form part of the county within which they lie, and in case the city limits coincide with county limits they succeed to all the duties and privileges of counties.

Counties have the same general corporate powers as townships. They are responsible for the support of the courts so far as the State does not provide for them, *i. e.* they pay all court expenses except the salaries of those judges who are required to be learned in the law, which are paid by the State. Prisons and work-houses for all criminals condemned to less than one year's imprisonment must be sustained by the counties. The expenses of maintaining those criminals in the State prisons who have been condemned to hard labor for a year or more, must also be paid by those counties within which they committed their crimes. The expense of the poor is also a county charge in some counties. The preparation of county and township tax-rolls and the collection of county and of certain State taxes is also a county function. The expenses and supervision of general and local elections fall within the sphere of county activity. As noted above, the courts may oblige the counties to construct and maintain certain bridges, and they are bound to bear the expense of laying out public highways and of paying all road damages assessed in such cases. The costs of holding coroner's inquests and post-mortem examinations connected with them, are likewise a county charge.

County officers consist of the following: sheriffs, coroners, prothonotaries, registers of wills, recorders of deeds, commissioners, treasurers, surveyors, auditors, clerks of the court and district attorneys. It will be seen that they are mostly officers connected with the courts, and they are nearly all at the same time also officers of the State Government, in the sense that they perform certain functions for the State.

It is plain from the above brief outline of the sphere of township and county authority that the courts perform many administrative functions in addition to their purely judicial duties, and that the duties of county and township officers are chiefly administrative, for although they exercise the legislative functions *par excellence* of levying taxes and voting appropriations it is only within definite and narrow limits drawn by statute or constitutional provision. It is, however, also quite as clear that these local bodies bear the chief burden of some of the most expensive of public functions. The cost of supporting schools, the poor, roads and bridges, the courts, the criminals, elections, etc., forms a large proportion of the total expenditure of a nation for all public purposes.

If we now glance briefly at the other extreme of our political system, the Federal Government, and ascertain the exact sphere of its activity, we shall then be in a position to comprehend quickly and easily the *rôle* of the remaining factor of our system the State Government in the province of public expenditure. Although the Federal Government is also a government of delegated powers, it is not so easy to define its province as that of the county and the township. The Federal Constitution gives the Federal Government power "to provide for the common defence and general welfare of the United States," and under this clause it has undertaken to perform either occasionally or permanently a great variety of functions. The chief powers expressly mentioned in the Constitution are the following: to declare and wage war, to coin money, establish post offices, and regulate commerce with foreign nations and among the States with all the incidental powers

necessarily implied in those especially enumerated. It provides for the representation of the nation at foreign courts, makes all necessary laws for the management of Federal territory, etc. The purposes for which expenditure is actually made by the National Government as indicated in the Treasury reports, may be briefly summarized as follows: 1. CIVIL, including Congress, executive, judiciary, government of territories, sub-treasuries, public lands, mints, inspection of steam vessels. 2. FOREIGN INTERCOURSE, including salaries of ministers and consuls, relief and protection of American seamen, international exhibitions, etc. 3. MILITARY ESTABLISHMENT. 4. NAVAL ESTABLISHMENT. 5. MISCELLANEOUS, including national surveys, post-office, pensions, Indians, internal improvements, promotion of science, national board of health, census, education, public documents, etc.

The Federal Government has made enormous grants of public lands to the individual States for educational purposes, amounting already to over 150.000,000 acres. It has also made liberal appropriations for the improvement of rivers and harbors, amounting to more than $100,000,000. In 1837, it distributed nearly $30,000,000 among the States in the form of a loan, which will never be repaid. It has also granted aid to railroads on a scale of munificence, never equalled by any other government. It has established scientific institutions of great value and has encouraged agriculture and education by the establishment of special departments for them at the seat of government. It has undertaken to promote the development of manufactures and even of agriculture by a system of discriminating duties against foreign products. It has established a National Board of Health with an extensive sphere of activity. The chief items of its expense have, however, always been those for the running expenses of the civil government and for the direct and indirect, (interest on war debt, pensions, etc.,) expenses connected with the military and naval establishments. It began its career, indeed, with the assumption of debts of the States, which had been contracted for the purpose

of carrying on the War for Independence. The expense of defence against foreign aggression, of representation at foreign courts, of protecting and regulating foreign commerce, of supporting a judiciary to decide cases to which the Union or individual States are parties, we may say, is entirely a Federal charge and, further, that the Federal Government may and does contribute largely to many other public purposes. It has thus to provide for some of the heaviest items of public expenditure. How large a portion of it, however, is for the single item of defence, may be seen from the simple fact that while the total expenditure of the Federal Government from 1791–1880 was nearly $18,500,000,000 over $16,000,000,000 of that sum were spent for the departments of army, navy, pension and public debt.

We are now in a position to comprehend clearly the functions of the State authorities. They exercise all the remaining functions of government. The State, as has already been said, is the depository of all the powers and rights of sovereignty which have not been expressly delegated. To ascertain exactly what powers and rights it actually exercises, which are connected with the expenditure of public money, the simplest procedure is to examine the finance reports of the State Government.

The chief expenditures of the State Government of Pennsylvania for the year ending November 30, 1882, may be classified as follows:

1. Expenses of the State Government,	$1,269,600
2. Education,	1,086,550
3. Charities,	1,107,063
4 Penal and Reformatory Institutions,	280,178
5. Other public purposes,	125,000
6. Public debt,	1,560,000

The first item includes the cost of the various executive departments, the Legislature and the Judiciary, so far as the State defrays the expense of that branch. It includes $250,000 expended for the State militia, which is supported by the State out of the general treasury, and for pensions paid by the

State. It also includes the expenses of maintaining the various public buildings necessary for the accommodation of the various departments. The State pays the salaries of all judges learned in the law, but leaves all other expenses for courts to the counties or makes them contingent on court fees. This arrangement, as has already been noted, shifts, of course, the main burden of supporting the administration of justice as a whole to the communities, since the clerks, constables, sheriffs and justices of the peace, together with all costs of buildings, etc., must thus be paid by the local governments. It must also be kept in mind that the execution of the laws, although theoretically in the hands of the Governor, is practically in most cases in the hands of local officers, who are paid by the communities. Thus a large portion of the expense for the executive branch of the State government is also borne by the local bodies.

The sum under the head of "Education" includes $87,000, voted to assist normal schools. The State undertakes to pay a certain sum per pupil, preparing to teach in the schools of the State to such institutions, not exceeding thirteen in the State, as will agree to give such pupils training in the art and science of teaching and instruction in the prescribed branches. Instead of establishing and maintaining normal schools under State management, it pays private schools for giving this normal instruction. The above sum also includes the salaries of a superintendent of schools for each county in the State. A sum of $3,000 was voted to a Teacher's Institute in Philadelphia, and an equal sum to the School of Design for Women, in the same city. The rest of this sum, with an insignificant exception or two, was distributed, according to law, among the school districts in the State in proportion to the number of taxables residing within the district, to be used solely for school purposes. The Constitution of the Commonwealth prescribes that "the General Assembly shall provide for the maintenance and support of a thorough and efficient system of public schools, wherein all the children of this common-

wealth above the age of six years may be educated, and shall appropriate at least $1,000,000 a year for that purpose." It is necessary for a school district to comply with certain requirements in order to get its share of this school fund. Among others, it must maintain a common school for five months in the year, except in those cases where the maximum rate of tax allowed by the law * will not produce funds enough to support a school.

All additional sums needed for schools, such as cost of school houses, salaries of teachers, etc., must be provided by the school districts. The State possesses an Agricultural College, which was founded with the proceeds of the National Land Grant of 1862, and has received substantial aid from State appropriations. The burden of public education is thus divided between the Federal and State governments and the school districts which, as said above, are ordinarily coincident with the township, though they may be smaller or larger.

The term "Charities" includes: 1. The Soldier's Orphans Schools, of which the State supports nineteen at an expense of about $350,000 yearly. The total expense of these schools from the date of establishment up to 1882 was over $7,000,000. There were 2,963 children on the rolls in May, 1881. 2. Insane Asylums. The State supports several hospitals for the curable insane. A fixed charge is made for each indigent insane patient, for which the county from which the patient comes, is responsible in the first instance, though it may collect the sum from the poor district in which the patient had a settlement. The buildings were erected by the State and large appropriations are regularly made to cover deficiencies in running expenses, etc. Incurable patients must be provided for by the poor districts in which they have settlements. It will thus be seen that the burden of caring for the indigent insane is distributed between the State Government and the various poor districts. 3. Hospitals for sick and injured persons. The State owns and manages one such institution for

* Cp. p. 83

injured persons of the Anthracite Coal Region. It appropriates also large sums annually or occasionally to various hospitals under the charge of private individuals or associations. The burden of such institutions is supported only in part, therefore, by the State. Most of them have received gifts and bequests from private parties and derive a further income from paying patients. 4. Institutions for Deaf and Dumb, the Blind, and the Idiotic. There are no State institutions for these classes of the afflicted, but the State appropriates large sums for the support of the indigent patients in private hospitals and schools. It has also erected many buildings for such institutions. School districts are authorized to establish separate schools for the instruction of deaf mutes, whenever there shall be eight such children in the district. In all the institutions under 2, 3 and 4, a small income is derived from paying patients which, of course, assists in defraying the expense of supporting them.

Under the head of "Penal and Reformatory Institutions," are included the state prisons and reform schools, so far as they are assisted by the State, whether under State management or not. The State maintains two penitentiaries and two reformatory institutions and assists one by large appropriations. All criminals condemned for more than one year are to be imprisoned in the State penitentiaries. The State erects the buildings and pays the salaries of the officials. Other expenses are to be paid by the counties from which the criminals come in proportion to number of criminals in the institution. The income from labor of convicts from profits of manufacturing and from the United States for the support of criminals against Federal law diminishes the total burden very materially.

Under the head of "Other Public Purposes," are included the costs of the Fish Commission, suppression of pleuro-pneumonia, analysis of fertilizers, State Board of Agriculture, statues of public men, etc. These items are of importance to show the broad limits of State interference. The State has expended large sums of money to stock the rivers with fish

and to protect the fish of the Commonwealth. No State Board of Health has been established as yet, but the functions of such a board have often been exercised by persons appointed in pursuance of a special act of the Assembly. The furtherance of agriculture has been from the earliest history of the State a care of the government.

The public debt of the Commonwealth, which now amounts to only about $20,000,000, but which at one time was nearly double that sum, was incurred almost entirely for the purpose of making public improvements, particularly roads and canals. The State, during its early history, made frequent appropriations for purposes which are now left to county or township care. The first public loan of the colony of Pennsylvania in 1723 was devoted quite largely to assisting counties in the establishment and maintenance of court-houses, alms-houses and jails, and, in 1751, the Pennsylvania Hospital in Philadelphia received a State appropriation.

It will be seen from the above that there is no absolute distribution of functions among the State, county, township, borough, and district governments. The State assists in the performance of many functions, the burden of whose expense lies mainly, however, on the local governments, and the tendency is clearly toward shifting a greater portion of certain burdens to the State. The indigent insane and other unfortunate classes of the poor cannot properly be cared for by the ordinary rural community. It is a disgrace to our civilization that we still continue to allow such abuses to exist in the treatment of those classes as can be found in a majority of the counties of our State.

It thus appears that by far the greater portion of the burden of all public functions undertaken by the Commonwealth rests upon the communities. The total expenditure by the State government for ordinary current expenses and appropriations for the year 1882 was in round numbers $5,000,000. In the same year the counties assessed a tax for county purposes of $15,000,000 in round numbers. The school districts assessed

a local school tax of more than $6,000,000. If we add to this amount all township expenses for other than school purposes, the local expenditure for that year will not be far from $25,000,000. We must keep in mind also that the expenses of the administration of justice are largely defrayed by fees, which device really makes that department a charge on the community. The income of the National Government for that year amounted to $400,000,000 in round numbers. Taking it for granted that Pennsylvania contributed to that income in proportion to population, which is of course below the truth, it paid $35,000,000 toward defraying those functions of the State which are performed by the Federal Government. It thus appears that the Federal Government provides $\frac{7}{13}$ of the total sums for public expenditure, the State government $\frac{1}{13}$, and the local governments $\frac{5}{13}$.

The preceding calculations are of course mere approximations to the actual truth, but they are sufficiently exact to give us some idea of the present state of things. The ratio between the expenses of public functions performed by the various governments changes very greatly. During and after war the Federal Government provides for an unusually large share of it until the debt contracted to prosecute the war is paid, when its ratio declines very rapidly. Of the $400,000,000 quoted above nearly $300,000,000, or $\frac{3}{4}$, were for expenses growing out of the last war; and when the war debt has once been paid and the pensions expire, national expenditure will of course shrink very considerably. During the "period of public improvements," the State government provided a much larger proportion of the public expenditure than it does at present.

We shall now examine the sources of revenue open to the Federal, State and local governments respectively.

The Federal government has power by the Constitution "to lay and collect taxes, duties, imposts and excises." It has, as a matter of fact, derived most of its revenue from indirect taxes, customs and excise, which have yielded more than

seven-eighths of the whole. Direct taxes (land and capitation taxes) have only yielded about three and one-half tenths of 1 per cent. of the total sum. Sales of public lands have brought in a little less than 2 per cent., and other sources altogether not more than 5 per cent. The proceeds of customs are reserved to the Federal Government to the exclusion of the States, but the latter may levy excise duties. This privilege is of no value to them under prevailing conditions, as no State can afford to levy excise duties unless all the other States would agree to levy equal rates, and there is no practicable means of attaining to uniformity of practice in this respect. The Federal Government collects its taxes through officials of its own appointment, except in the case of direct taxes, when it has always allowed the State the option of collecting and paying its share into the Treasury.

The public revenue of the State is derived (1) from the income or sale of public property, (2) from fees, (3) from taxes. The following table contains the official list of the sources of income, and the amount of revenue derived from each source for one year. It will be seen that there is no principle underlying the arrangement. In fact, the arrangement changes with every new officer of the Treasury.

SUMMARY OF RECEIPTS.

At the State Treasury, from the 1st day of December, 1881, to 30th day of November, 1882, both days inclusive:

1.	Lands,	$5,605 47
2.	Tax on corporation stock and limited partnership,	1,675,388 80
3.	Tax on gross receipts,	658,670 91
4.	Tax on coal companies,	90,703 86
5.	Tax on bank stock,	350,171 59
6.	Tax on net earnings or income,	74,265 15
7.	Tax on gross premiums,	32,057 86
8.	Tax on loans,	686,790 38
9.	Tax on personal property,	437,776 61
10.	Tax on writs, wills, deeds, etc.,	109,104 28
11.	Tax on collateral inheritances,	476,852 02
12.	Tax on sale of fertilizers,	3,780 00
13.	Foreign insurance companies,	234,939 10
14.	Tavern licenses,	493,862 32

15.	Retailers' licenses,	305,934 92
16.	Eating house licenses,	79,632 26
17.	Brewers' licenses,	9,188 42
18.	Billiard licenses,	16,534 60
19.	Brokers' licenses,	9,886 34
20.	Auctioneers' licenses,	6,538 04
21.	Liquor licenses,	36,076 50
22.	Pedlers' licenses,	1,766 10
23.	Patent medicine licenses,	4,503 20
24.	Theatre, circus, etc. licenses,	6,040 80
25.	Bonus on charters,	130,991 91
26.	Office license fees,	10,480 99
27.	Accrued interest,	50,336 39
28.	Penalties,	578 17
29.	Pamphlet laws,	275 41
30.	Notary public commissions,	10,275 00
31.	Allegheny Valley Railroad Company,	439,069 41
32.	United States Government,	94,561 15
33.	Commutation of tonnage tax,	460,000 00
34.	Annuity for right of way,	10,000 00
35.	Escheats,	3,073 87
36.	Fees of public officers,	50,472 99
37.	Refunded cash,	697 57
38.	Dividends on stock owned by the Commonwealth,	80 00
39.	Conscience money,	16 00
40.	New loan,	9,360,120 45
41.	Miscellaneous,	1,551 27
		$16,428,650 11

The above summary of receipts at the State Treasury for the year ending November 30, 1882, presents clearly the sources of revenue open to the State.

The first item contains the revenue derived from the sales of public lands and fees for land warrants and patents.

The second, being the largest single item in the list, represents the income from a State tax on the capital stock of all corporations, including limited partnerships, except such limited partnerships as are formed for mercantile or manufacturing purposes. In the case of all corporations which have declared an annual dividend of 6 per cent or more the tax amounts to ½ mill on each dollar of capital stock for every per cent.

of dividend declared. Thus a corporation which declares a dividend of 7 per cent. pays 3½ mills on the capital stock, one declaring 8 per cent. dividends pays 4 mills, etc. In case the dividend declared is less than 6 per cent. or in case no dividend at all is declared the capital stock is appraised and taxed at the rate of 3 mills per dollar of appraised value. Foreign corporations and banks and savings institutions are taxed at special rates as will be seen from the discussion of the other items.

The heading "taxes on gross receipts" includes a tax of $\frac{8}{10}$ of 1 per cent. upon the gross receipts of all transportation companies, a 5 per cent. tax on the gross receipts of all notaries public in the county of Philadelphia and a 50 per cent. tax on the gross receipts of all other notaries public over and above the sum of $1,500.

The "tax on coal companies," which has been abolished recently, was a tax on the franchises and privileges of companies possessing the right to mine or purchase coal, assessed at the rate of 3 cents upon every ton of coal mined or purchased.

Incorporated banks, savings institutions, etc., have the option of assessing their stock, subject to revision by the Auditor General, to be taxed at the rate of $\frac{4}{10}$ of 1 per cent. or of paying $\frac{6}{10}$ of 1 per cent. on the total amount of authorized capital, and thereby escaping all other taxation. The income from this tax is given under the fifth heading above.

The "tax on net earnings or income" is levied on all unincorporated or incorporated companies not otherwise taxed and on every unincorporated or private bank or banking institution, including brokers. It amounts to 3 per cent. of the net income.

The "tax on gross premiums" is a tax on insurance companies incorporated by the State of Pennsylvania and amounts to $\frac{8}{10}$ of 1 per cent. on all premiums from business transacted within the State. Companies managed on a purely mutual plan are exempt from this taxation.

The "tax on loans" is also a corporation tax on all public and private corporations in proportion to their indebtedness, being assessed at the rate of $\frac{4}{10}$ of 1 per cent. on every dollar of indebtedness.

The "tax on the personal property" embraces several distinct items. 1. A tax of $\frac{4}{10}$ of 1 per cent., upon the value of all mortgages, money owing by solvent debtors, whether by promissory note, penal or single bill, bond or judgment; also, all articles of agreement and accounts bearing interest, owned or possessed by any person or persons whatsoever and all other moneyed capital in the hands of individual citizens in the State.

2. A tax of $\frac{3}{10}$ of 1 per cent. upon the value of all stages, omnibuses, hacks, cabs and other vehicles used for transporting passengers and all annuities over $200 except those granted by this Commonwealth or the United States, all personal property held, owned, or used by any person or corporations and all household furniture exceeding $300 value.

3. A tax of 1 per cent. of the value of all pleasure carriages.

4. Gold watches are taxed $1, silver watches 75 cents each, and all other watches, worth more than $20, 50 cents each.

The "tax on writs, wills and deeds, etc.," includes: 1. a tax on all writs of error or appeal, or of *certiorari* or *habeas corpus*, etc., varying from 50 cents to $3.50. 2. a tax on all wills and deeds when they are recorded of 50 cents for each instrument and a tax of $10 for each commission issued to certain public officers—Sheriff, Recorder of Deeds, Prothonotary, etc.

The "tax on collateral inheritances" is a tax of 5 per cent. on all property of more than $250 in value upon its passing to collateral heirs.

Manufacturers or importers of commercial fertilizers are taxed on their sales $10 for 100 tons or less, $20 for sales from 100 up to 500 tons, and $30 for all sales beyond that.

Foreign insurance companies are taxed at 3 per cent. of all the premiums which they receive within the State of Pennsylvania.

The revenue indicated under the headings 14–24 is derived from license taxes on certain occupations, roughly proportioned generally to the estimated incomes from such occupations. All hotels, inns, and taverns pay a license tax, varying from $50 to $700, according to the estimated gross sales of liquors. They are divided into five classes having estimated gross sales of (1) less than $4,000, (2) between $4,000 and $6,000, (3), between $6,000 and $8,000, (4) between $8,000 and $10,000 and (5) of more than $10,000, and are taxed $50, $100, $200, $400, and $700, respectively.

The tax on retailers applies to all vendors of merchandise whose annual sales amount to more than $1,000 except such as are subject by law to special rates. A *femme-sole*, whose sales are less than $2,500 per year, is also exempt from this tax. They are divided into twenty classes; those whose gross sales are more than $1,000 and less than $5,000 per year pay $7, and form the first class; those making sales to the amount of $5,000,000 or more form the twentieth class and pay $1,000. The tax, it will be seen, may vary between nearly $\frac{7}{10}$ of 1 per cent. in the case of the first class and $\frac{1}{50}$ of 1 per cent. in the case of those just coming within the twentieth class, while it may become relatively smaller and smaller, of course, in the case of those having sales to the amount of more than $5,000,000, in proportion as their sales increase. Vendors selling foreign merchandise in the original package or products of their own growth and manufacture are not required to take out licenses.

All keepers of eating houses or restaurants are also required to take out licenses for which they have to pay from $20 to $200 according as their sales are less than $3,000 or more than $20,000 annually, except that $50 is the minimum price of a license in an incorporated city. They have the privilege of selling domestic wines and malt or brewed liquors. It will be seen that the tax amounts to 1 per cent. in the case of those just coming within the highest class.

All brewers and distillers are divided into ten classes, and have to take out a special license varying from $15 in the case

of those whose sales are $1,000 or less to $200 on sales of $100,000 or more.

Keepers of billiard saloons and bowling alleys are taxed $30 for the first billiard table or bowling alley and $10 for each succeeding one, except in Philadelphia and Pittsburg, where the rate is $100 for the first table or alley, and $10 for each additional one.

All stock, bill, exchange, merchandise, and real estate brokers are required to take out a license, and to pay therefor 3 per cent. on the amount of their annual business.

Auctioneers are also required to take out licenses, paying therefor 3 per cent. on the amount of their annual sales, except that in the city of Philadelphia no license shall be issued to auctioneers for a less sum than $500 per annum.

Licenses to retail spirituous and vinous liquors, are taxed in the same manner as other licenses to retail merchandise (see heading 15 above) except that the rates are just double those on other classes of merchandise and that the lowest license is $50. Those who do not retail in quantities less than a quart pay four-fifths as much as the class just mentioned and the minimum price of a license is $25.

All hawkers and pedlers must take out licenses, which are of two kinds, good for one county and for the whole State, respectively. For the former, they must pay $8 per year for a license to travel on foot, $16 for license to travel with 1 horse and vehicle, and $25 for license to travel with 2 horses and vehicle; for the latter $40 and $50, respectively, for license to travel with 1 or 2 horses and vehicle. Only such persons as are unable to work from physical disability are allowed to take out licenses.

Dealers in patent medicines were for many years subject to a special license tax. This has been lately repealed by an act which subjects all such dealers to the ordinary rates for retailers' licenses, except that every man engaged in the manufacture and sale of such nostrums is subject to the above-mentioned rates.

Theatres, circuses, museums or theatrical exhibitions pay $500 in the city and county of Philadelphia, $200 in the county of Allegheny, and $50 for other counties. For menageries the rates are $200, $100 and $30 respectively in the above counties. A State license giving privilege of exhibiting in any county of the State is issued for $1,000.

The revenue from "bonus on charters" is derived from a tax of ¼ of 1 per cent. upon the amount of the capital stock of every new company incorporated, except turnpike, bridge and cemetery companies, and building and loan associations.

The revenue from "office license fees" is derived from a tax on all foreign companies (except foreign insurance companies) doing business in this Commonwealth, and having offices within its limits. The tax amounting to ¼ of 1 mill on each dollar of capital stock authorized is collected by means of a license to keep an office in the State.

The item headed "accrued interest," represents the amount received as interest on unpaid taxes, which after a certain time begin to bear interest at 6 per cent.

The income from penalties is very small, and is derived from certain fines and penalties incurred by persons or corporations who have violated provisions of acts of the Assembly.

The income from "pamphlet laws" is derived from the sale of State laws and reports, which are printed in pamphlet form and sold at a fixed price.

Notaries public pay $25 for their commissions and from this source the item numbered 30 is drawn.

The Allegheny Valley Railroad Company issued bonds to the State for a series of State canals, which were sold to it with the understanding that the company would pay interest at 5 per cent. on the bonds and $100,000 of the principal annually.

The item numbered 32 represents a sum paid by the United States Government to the State for expenses incurred by the latter in arming and equipping troops during the early part of the Civil War.

The "commutation of tonnage tax" is a gross sum of

$460,000, which the Pennsylvania Railroad pays annually into the State Treasury in return for the abolition of a tax which was formerly levied on all things loaded or received at Harrisburg, Pittsburg and intermediate points on the railroad of said company, and conveyed more than twenty miles, which tax was intended to compensate the State Railroad from Philadelphia to Columbia for any loss it might suffer by reason of the construction of the Pennsylvania Railroad.

The "annuity for right of way" is a sum of $10,000 annually, which the New York and Lake Erie road agreed to pay for permission to pass through a part of Pike county.

All real and personal estate of persons dying intestate, without heirs or known kindred, shall escheat to the State. All land purchased by corporations without license, and property conveyed in mortmain beyond certain limits, shall escheat.

All fees of certain public officers are paid over to the State and form a not inconsiderable item of income. The fees collected by the officers in the departments of the State government at Harrisburg, form by far the most important portion of such income.

"Refunded cash" embraces the unexpended balances of appropriations which are covered into the Treasury.

The Commonwealth owns stock in sundry corporations besides those mentioned above to the nominal value of $500,000, most of which yields no income, and some of which could hardly be given away. "Conscience money" is the name applied to all sums sent to the State Treasury as State money without name of sender. The item "miscellaneous" includes sales of old stores, State reports, etc., from which a few hundred dollars are derived every year.

The item "new loan" refers to a refunding of the State debt at a lower rate of interest.

A further source of income consists in a tax upon all private acts passed by the Assembly, and another in a special tax on logs expedited by the Susquehanna Boom Company, neither of which is very productive.

The New Constitution, adopted in 1874, contains two provisions, which draw very narrow limits for the State financial system. Up to 1874, the State might subscribe to all kinds of business enterprises, either with the hope of making money out of them, or simply to encourage the use of desirable branches of industry. At one time in the history of the State the dividends on bank stock, owned by the Commonwealth, formed the largest single item of ordinary revenue. The Legislature was also empowered to contract debt for any public purpose to any amount whatever. The State contracted nearly $40,000,000 of debt directly and indirectly for the purpose of making public improvements, roads, bridges, turnpikes, railroads and canals. The New Constitution puts an end to this policy. The State is prohibited from pledging or loaning its credit to any individual company, corporation or association, and from becoming a joint owner or stockholder in any company, association or corporation. Nor is the State allowed to create any debt, except to supply casual deficiency of the revenue, to repel invasion, suppress insurrection, defend the State in war, or to pay existing debt, nor may it contract an indebtedness of more than $1,000,000 in the aggregate to supply deficiencies in revenue. It is not allowed to assume the indebtedness, or any portion thereof, of any county, township, borough or city, unless it was contracted for the purposes of public defence. It will thus be seen that the use of public credit on the part of the State is practically limited to defence of public order.

It appears from the above table of receipts that the income of the State government, excluding that from public loans to refund existing debt, was something over $7,000,000. The most striking facts in the system of State finance are the prevalence of direct taxes, the absence of a land tax and the large per cent. of public revenue raised by the taxes on corporations.

The system of county finance is still more simple than that of the State.

The County Commissioners direct the Assessors to take an

account of all the taxable inhabitants of their respective districts and of the following property:

(1.) All houses, lands, lots of ground, ground rents, manufactories of every description and all other real estate, furnaces, forges, bloomeries, distilleries, sugar houses, etc.

(2.) All horses, mares, mules, geldings, and neat cattle over 4 years of age; mortgages and debts due from solvent persons; all shares of stock in any incorporated company or in any unincorporated savings fund institution, and all public loans and stocks whatsoever, and all money loaned or invested in any other State; household furniture, (including gold and silver plate,) when the value thereof exceeds $300; all pleasure carriages, all gold and silver watches and other watches, worth more than $20; all stages, omnibuses, hacks or other vehicles, used for transporting passengers for hire; all annuities over the value of $200, except those granted by the Commonwealth of Pennsylvania, or by the United States; all trust funds of every description, except those held for religious purposes.

(3.) All offices and posts of profit, professions, trades and occupations and all single freemen above the age of 21 years, who do not follow any occupation or calling.

The Assessors, after completing their tax rolls, are then directed, in connection with their assistant assessors, to value all real estate, with the improvements thereon, at what they believe the same would sell for at a *bona fide* sale after due public notice. All personal property, except watches, must be valued in the same way. All offices and posts of profit, professions, trades and occupations are valued at what the Assessors believe to be the actual yearly income derived therefrom.

The County Commissioners then proceed to make an estimate of the amount of money needed to defray county expenditures for the fiscal year and to fix such a rate of tax per $100 of the total assessed valuation of all property assessed and valued as will produce the required amount of revenue. Most of the items included under (2) are subject to the State tax on personal property mentioned above, and, (with the excep-

tion of money at interest and watches,) to county and township tax also, while those under (1) and (3) are subject only to county and township tax.

It is the general impression in the business community that real estate is not assessed at more than two-thirds of its actual cash value, while it is a notorious fact that enormous quantities of personal property escape assessment and taxation altogether. Thus, in the year 1880, the total valuation of all property in the State included under (2) above was given at less than $112,000,000, while the assessed valuation of the real estate in Philadelphia County alone was more than four times that sum. The tax on offices, etc., so far as the form is concerned, is a general income tax, but it is levied in such a careless way, that it possesses no great importance. In some counties it is not levied at all, and in others it is assessed in such a way as practically to become a class tax, since laborers are assessed at from $100 to $150, tradesmen at $100 to $200, clergymen at $300 to $500, and attorneys and professors at $300 to $800.

The other sources of revenue open to the county are not very important. They include the receipts from the jails, workhouses and alms-houses, the proceeds of most fines levied by the courts, the proceeds of fees in all such counties as pay their county officers stated salaries, and a certain percentage of the taxes collected for the State. The receipts from fees should really be classed as county income, even in those counties in which they do not pass into the county Treasury, but go directly into the hands and pockets of the officials, for in the latter case they form the remuneration of officers, who would otherwise have to be paid from the county Treasury. Of the county officers above mentioned, the Recorder, Surveyor, Register, Prothonotary, Clerk of the Court, Coroner and Sheriff are paid by the fees of their offices in all counties containing less than 150,000 inhabitants. In other counties they are paid by salary, and the fees pass into the county Treasury. The county pays the fees to such officers, which they are authorized to charge in all public matters. The actual amount of the fees

received is not reported by all officers or by all counties, so that it is impossible to make even an approximate estimate of the total income from this source. The City of Philadelphia, which now embraces the whole of the county, received in fees from the six offices mentioned above, in the year 1881, about $340,000, or about 34 cents per head, which is probably very much above the average receipts in the State as a whole. Under the Old Constitution, counties were authorized to take stock in various kinds of enterprises, such as railroads, turnpike, toll bridges, canals, etc., and very many counties still possess stock, which they bought years ago, some of which pays very well. The New Constitution of 1874 forbids counties to become stockholders in any company, association or corporation, and thus cuts them off from such sources of income. It limits also their use of public credit by forbidding their officials to contract debts to more than 2 per cent. of the total assessed valuation, without the assent of the electors at a public election, and even with such assent 7 per cent. of the total assessed valuation is the highest limit of allowable indebtedness. Counties are also bound to levy such a rate of tax for the payment of the debt as will redeem it completely, principal and interest within thirty years.

Townships have still fewer sources of revenue than counties. They are practically limited to taxes on the three classes of property mentioned above as subject to county rates. School directors are authorized to levy taxes on all objects which can be taxed for State or county purposes. All fines for violations of the liquor laws, whether for drunkenness or for selling liquor to minors or to inebriates, are covered into the Treasury of the school district within which the fine is imposed.

Township officers receive a certain remuneration for their services fixed by law. The Treasurer receives a per cent. School Directors receive no pay.

The financial system of the township is peculiar, in that there are two and sometimes three distinct bodies which can levy taxes—the Board of Supervisors and the Board of Directors,

and whenever the Board of Supervisors are not at the same time the Board of Overseers of the Poor, the latter body also has the privilege of levying taxes.

The law now distinguishes between boroughs and towns and cities. Any borough or town may become an incorporated city by a majority vote of its legal voters, provided that it contains 10,000 inhabitants. Boroughs have essentially the same sources of revenue as a township. They may assess taxes to the amount of 5 mills on the dollar of assessed valuation for county purposes. They are authorized, in addition, to collect such fees as they see fit for the services of public officers and to make such charges for water and gas as seem to them good. They may also levy assessments against property-holders to pay for expense of grading and repairing roads, etc. They may also regulate the charges in connection with public markets and levy a tax on dogs.

Incorporated cities have somewhat more extensive powers in regard to raising public revenue than boroughs. In addition to the powers granted to boroughs, cities are empowered to levy a poll tax not exceeding $1 on all able-bodied males between the ages of 21 and 50 years. They may also levy license taxes on over fifty different callings, including all mercantile, transportation and amusement companies. The same provisions of the Constitution in regard to owning stock and controlling public indebtedness apply to townships, boroughs and cities as to counties.

The method of collecting and administering the taxes is somewhat different in the various public bodies of our system.

The National Government, as noted above, collects its own revenues directly by its own officers except in the case of land and capitation taxes which the State may collect and pay into the Federal Treasury themselves. The State government, on the contrary, requires the county officials to collect a large portion of its revenue for it and then pay it into the State Treasury. In many States, indeed, nearly the whole of the revenue is collected in this way. In Pennsylvania the follow-

ing taxes are collected by the county officials on behalf of the State: taxes on licenses (retailers', brewers', brokers', auctioneers', liquor, etc.), taxes on loans of public corporations, on personal property, on writs, wills and deeds, on fees of county officers, on collateral inheritances. All other taxes are paid directly into the State Treasury. The State allows the county a certain percentage of the tax receipts as remuneration for collecting them. It will be seen from the preceding description that the cost of assessment of personal property is a charge upon the counties. The assessment which serves as a basis for the levy of retailers' license is made by so-called mercantile appraisers appointed for this purpose, and who were formerly paid by the counties but are now paid by the State. The amount of the tax due the State forms a lien upon the funds in the county Treasury and the claims of the State must be satisfied before those of any other creditor.

It is quite difficult to make any accurate estimate as to the costs of collecting the taxes. The costs of making the assessment, of preparing the tax-rolls, of furnishing copies thereof, and the remuneration of collectors, and of the Board of Equalization should all be ascertained and added together in order to estimate the cost of collection.

The Board of Supervisors and Overseers of the Poor of each township appoint a collector of township taxes, who is entitled to receive 5 per cent. of all taxes collected by him in full compensation for his services. The Board of School Directors may also appoint a collector of school taxes who is entitled to receive 5 per cent. of the tax collected by him. The Board of County Commissioners appoint collectors of county taxes who also receive the same percentage of the tax collected. Thus within the same township there may be three different collectors of taxes, one for the county, one for the school district and one for the other township authorities.

There is practically no administrative supervision of these various officers, most of whom are elected for short terms—one to four years. They can be disciplined only in the form of a

prosecution before the ordinary courts and it is almost impossible to remove them during the term for which they were elected, except for malfeasance or exceedingly gross neglect of duty.

The Commonwealth of Pennsylvania, in common with nearly every other civilized State, has found it necessary to place some positive check upon the power of local governments to contract indebtedness and even to levy taxes. The provisions in regard to the former power have been mentioned above. In regard to the latter, counties are not allowed to levy taxes within any one year to the amount of more than 1 per cent. of the assessed valuation. Townships may levy for general purposes 1 per cent., and for running expenses of the schools 1.3 per cent., and for the purpose of building school-houses an additional 1.3 per cent. Cities are permitted to levy 1 per cent. for general revenue purposes and an additional 1 per cent. to pay public loans and make improvements. The State collects a tax of 3 and 4 mills respectively on the two classes of personal property mentioned above. The real estate of a township may then be taxed 1 per cent. for county purposes, 1 per cent. for roads and bridges, 1 per cent. for care of the poor, $1\frac{3}{10}$ per cent. for running expenses of the schools, and occasionally $1\frac{3}{10}$ per cent. additional for building purposes, making a total of 4.3 per cent. for ordinary expenses and 5.6 per cent. on extraordinary occasions. Under the old system of taxation by which the real estate was also taxed for State purposes the State government was authorized to levy only $\frac{3}{10}$ of 1 per cent. for its own use, or only $\frac{1}{14}$ as much as the various local governments were authorized to levy for local purposes.

As a matter of fact the limit is never even approached by all these various bodies at once. If the real estate were assessed at its full value, it is probable that a one per cent. tax on that valuation would pay all State and local expenses.

In conclusion, we have arranged the principal objects of expenditure and sources of revenue in a tabular form, so that they can be easily compared.

E. J. JAMES.

SOURCES OF REVENUE.

	National Government.	*State Government. Pa.*	*County Government. Pa.*	*Township Govt. Pa.*	*City Government. Pa.*
I. PUBLIC PROPERTY. .	1 Income from public lands.	1 Income from State lands.	1 Stock in railroad, turnpike and canal companies, (forbidden to be acquired in future).	1 Stock in transportation, and similar companies, (forbidden for the future).	1 City property, houses, markets, etc., stock in companies, (forbidden for the future)
	2 From other public property, bank and railroad stock, etc., (now insignificant).	2 From other public property, bank and railroad stock, etc., (forbidden to be acquired in future).	2 Proceeds of almshouses, jails, workhouses, etc.		2 Income from water and gas works.
II. FEES. . . . . 1 Administrative.	3 Custom-house, consular service, inspection of steamboats, passes, surveys, etc., patents, postage, coinage, copyright.	3 Fees of the various State departments.	3 Charges for registering wills, mortgages, etc.	3	3 Fees of Administrative Departments.
2 Judicial	4 United States Courts fees, fines and penalties.	4	4 Court fees, fines and penalties.	4 . . . . . *	4 . . . . .
III. TAXES.	5 *Allowable*—are all, except export duties. *Actual*—customs, excise on distilled and fermented liquors and tobacco. License tax on dealers in taxed articles.	5 *Allowable*—are all, except export and import duties. *Actual*—tax on corporations, licenses to pedlers and dealers in intoxicating liquors, and auctioneers, writs, wills and deeds, collateral inheritances, personal property.	5 General property tax on real and personal property and value of calling, profession, office, etc., (excepting moneys at interest and watches).	5 Same as county.	5 Same as county and in addition poll tax and licenses on mercantile, transportation and amusement companies.
IV. LOANS.	6 To any amount practicable by any method which seems good.	6 Limited by State Constitution. Bills of credit forbidden by national constitution	6 Limited in amount by State Constitution and Law.	6 Limited in amount by State Constitution and Law.	6 Limited by State Constitution and Law.
V. MISCELLANEOUS. . .	7 Gifts, conscience fund, wrecks, confiscations	7 Gifts, conscience fund, escheats.	7 Gifts, within limits specified by law.	7 Same as county.	7 Same as county.

* The township receives fines inflicted for drunkenness.

OBJECTS OF EXPENDITURE.

	National Government	State Government. Pa.	County Government. Pa	Township Gov't Pa.	City Government, Pa.
I. Running Expenses Government	1 Executive. 2 Congress. 3 U. S. Courts.	1 Executive. 2 Legislature. 3 Salaries of judges learned in the law.	1 County officers. 2 . . . . . . 3 All court expenses except salaries.	1 Township officers. 2 . . . . . . 3	1 Executive. 2 Councils. 3 . . . . .
II. Foreign Intercourse	4 Ministers and Consul	4	4	4	4 . . . . .
III. Army	5 Entire expense.	5 Militia.	5	5	5 . . . . .
IV. Navy	6 Entire expense.	6	6	6	6 . . . . .
V. Internal Administration	7 U. S. Census and Statistical Bureau. 8 National Board of Health. 9	7 State Census and Statistical Bureau. 8 State Board of Health 9	7 Tax census. 8 . . . . . . 9 Police, constables, sheriffs, justices of peace.	7 School census. 8 . . . . . . 9	7 School census. 8 Board of Health. 9 Police force.
	10 Educational Bureau. Land grants to common schools.	10 State grant to local schools, State institutions.	10	10 Local schools*	10 City schools.
	11 Highways: grants to railways.	11 Grants to railways.	11 Laying out roads.	11 Construction of roads and bridges.	11 City Streets.
	12 Postal Service.	12	12	12	12 . . . . .
	13 Lighthouses, harbors rivers.	13 Harbors and rivers.	13	13	13 Harbors
	14	14	14	14	14 Water and gas and fire companies.
	15	15 Asylums for unfortunate poor.	15 Support of poor where it is not a township burden.	15 Support of poor* where it is not a county burden.	15 Support of city poor.
	16 Coinage and currency	16	16	16	16 . . . . .
	17 Advancement of Science, Gov't Depts at Washington.	17 Geological and Entomological Surveys.	17	17	17 . . . . .
	18	18	18 Expenses of general elections.	18	18 City elections
	19 May appropriate for any purpose which can be brought under head of "general welfare."	19 May appropriate for any public purpose not forbidden by State Constitution.	19 May appropriate only for such public purposes as are expressly authorized by law	19 Same as county.	19 Same as county.

* When the school or poor district does not coincide with the township, expenses for schools and the poor are borne chiefly by the district.

Taxation in Japan.

SINCE the system of taxation in every country varies with the stages of its historical development, the historical method is best for treating the subject.

The plans proposed by a school of economists for dealing with land have been anticipated in Japan. John Stuart Mill, Emile Laveleye, Henry George and others have elaborated theories, claiming that land should belong to the state. In fact, all lands in Japan were formerly the property of the sovereign.

Mr. Parnell and his followers propose that all lands should be divided among the people, so as to constitute a peasant property. The old legislation of Japan sought to effect a general distribution of land among the whole people, and prohibited each land-owner from making any encroachment upon the share of others, under heavy penalty.

Some communists propose the confiscation of all personal property, because "property is robbery." The Japanese government approached this view, when it issued a proclamation that "debtors should be free from all obligations."

Economists generally regard the taxation of land as expedient, holding that if the state's revenue be derived from land tax chiefly it is much steadier than if it depend upon other sources of revenue.

Land, they say, can neither be moved nor hidden, and land is the least destructible element of national wealth. The revenue of Japanese sovereigns has been derived from a general land tax. The experience of Japan, therefore, in the matter of taxation and land tenure, is not without interest to economic students.

At the time when Japan made its first appearance in history, it had reached a more advanced and more modern state of civilization than had the Western nations. Its social advance

was more rapid, because in the absence of sheep, the tillage of the soil had followed immediately upon that stage in which primitive men everywhere lived by hunting and fishing. The first pressure of population on subsistence made the people farmers. Since the very beginning of the national history, the Japanese sovereigns have been principally supported by a land tax collected upon the actual annual produce of the land, something like the tithes paid by church lands in Europe. In Asia, generally this mode of taxation is thought to interest the sovereign in the improvement and cultivation of land, and the making and maintaining of good roads and canals for navigation in order to increase, as much as possible, both the quantity and the value of the produce of land. "Such taxes," says Adam Smith, "when destined for the maintenance of the state, have some advantages which may serve in some measure to balance their inconvenience."

Like the Physiocrats, the Japanese economists seem to believe that "the productive powers of the soil are the sole source of a nation's wealth: agricultural labor is therefore the only productive industry, all others being sterile." It is not to be wondered at, therefore, that while paying so much attention to farming, they despised traders. Another reason for this respect for the farmer was found in military necessity. A military maxim current in the East teaches us that "though our castle be built a hundred feet high, surrounded with boiling water, we could not defend it without grain." It has been recognized that national defence is the first duty of the sovereign. For this reason, the Japanese were divided into four classes, or castes, viz., *Shi*, *Samurai*, or Knight, to whom belonged both the military and the civil service; (2) *No*, or farmer, who supported the army and other persons by their labors; (3) *Ko*, or artisans; and (4) *Sho*, or the trader.

In Japanese history the taxation system can be traced as far back as 87 B. C. At that date, the Mikado's government took a census of population. Classifying the people as old and youth and of middle age, the government imposed upon

this last class, without distinction of sex, a labor tax. This tax was expressed in days' work to be spent in making canals, roads and drains for agricultural purposes. In the next year, it was ordered that certain states should build vessels to facilitate transportations and communications.

The despotic government which has existed in Japan from the earliest period known to us, was characterized by great simplicity in its ideas, as may be seen from the following fact: In the first part of the third century, the Mikado, Nintoku-Tenno, the contemporary despots of the Roman Emperor Constantine, and of the Persian King Sapor, "having claimed a hill and looked around in the landscape observed the absence of smoke from the cottages of the people. He, therefore, decreed that for the space of three years no taxes or forced labor should be exacted of his subjects. His own palace, for want of fund to repair it, was allowed to become so dilapidated that the roof admitted the rain. Three years later, he again ascended the hill, and beheld smoke arising from every dwelling. He said, "I am rich." The people were now rich enough to bear taxation without feeling the burden, and voluntarily offered to contribute to the rebuilding of the palace.

In 646 A. D., the Mikado Kotoku issued a proclamation, threatening severe punishment to officials and rich men who should make encroachment on the poor and appropriate the husbandmen's lands and also forbidding such from renting their own shares of lands to farmers and living upon the rents they exacted. He thus put a stop to dealing in real estate.

This Kotoku was the Mikado who laid the foundation of Japanese taxation system.

After an accurate census had been taken, the office of village-chief was created. "Measurements of rice fields were devised, every *cho* (2½ acres) being estimated to produce 2,500 *shoes* of rice, and out of the whole production 110 *shoes* were to be collected as tax. Two *tans* (the fifth of a *cho*) were assigned to a male, and two-thirds of the same to a female, an actual enumeration being taken every sixth year."

Beside that, ten days' labor tax a year was imposed upon every person of middle age, from 16 years old to 60, which might be commuted by a payment of 26 feet linen, computing each day's labor as 2 feet, 2 inches of cloth. Besides this, for every *cho* of rice land was paid a tax amounting to either 10 feet of silk, 20 feet pongee, or 40 feet linen, according to the productiveness of the land in each district. Lastly, a house tax was imposed, every house paying 12 feet of linen." At this time, grain, silk and linen were used as money.

It must be borne in mind that the Chinese civilization, being introduced into Japan, Chinese idea of law, literature, religion, and industry were prevalent. The taxation system, no doubt, was borrowed also from the Chinese practice but less modified.

It may be worth while to state the old Chinese theory of taxation in brief. In the fourth century before Christ, Mencius had told a prince: "If in the market-place of your capital you levy a ground rent on the shops; but do not tax the goods; if at your frontier passes there be an inspection of persons, but no taxes charged on goods; if you require that the husbandmen give their mutual aid to cultivate the public fields and exact no other taxes from them; if there is in the hamlet a quota of cloth, but no other tax, then all people of the world will be pleased to live within your territory.

"Lung said, 'For regulating the lands there is no better system than of mutual aid, and none which is not better than that of taxing. By the tax system, the regular amount was fixed by taxing the average of several years. In good years, when the grain lies about in abundance, much might be taken without its being oppressive and actual exaction would be small. But in bad years, the produce being not sufficient to repay the manuring of the fields, this system still requires the taking of the full amount.'

"The ancient theory for allotting the land, was to mark it off in squares, the middle squares being called the government fields, the other eight were assigned to eight husbandmen and their families who cultivate the public fields in common.

"It is said in the Book of Poetry: 'May the rain come down on our public fields, and then upon our private fields.'

"In fact, what was paid in all Chinese dynasties was a tithe.

"Princes held, moreover, court in the Spring, they examined the ploughing and supplied any deficiency of seed; in the Autumn, they examined the reaping and supplied any deficiency of yield." The ancient Japanese provincial officers acted on these principles.

As Japan desired to encourage the emigration from the Corea, through which we become familiar with the old Chinese civilization, she assisted the immigrants with houses and food, and sometimes exempted them from all taxes.

In A. D. 723, to meet the demands of increasing population, about 1,000,000 *choes* of new rice fields were obtained by means of public labor tax. The government furnished food and supplied implements which were under the supervision of provincial governments, and were divided among the people.

Sango's Political History says: "The land tax, even while fixed at 5 per cent. was always reduced in times of wars, floods, drought, pestilence and great public works; and the tax partly or entirely unpaid for above ten years was often remitted. The idea of this wise policy was to increase the power of taxpayers, which was considered the foundation of a state, but in later times this idea was no longer respected and the property of the farmers was so much regarded as existing for the sovereign that corrupt officials who could obtain larger amount of revenue were regarded with favor as able officers. The result of this short-sighted policy was that the people absconded from homes and left their lands. The effect was the loss of far more taxes than by frequent reductions and remissions of the earlier period."

Toward the end of the eighth century, it was forbidden to endow temples and monasteries with the gift of lands or houses. The purposes of this ordinance might have been to prevent the decrease of national revenue, since the temples and monasteries were exempt from taxation.

In 914, a memorable petition was presented to the Mikado Digo by the statesman Miyoshi, from which we give the following extract:

"Since the introduction of Buddhism the whole people of the country has spent much money in buildings, temples and monasteries, even to their own impoverishment. Not only so, but since immense sums of money have been spent for palaces and castles, taxation had been increased enormously.

"The present system of taxation is not the tithe system of former times. Now almost half of the priests are hypocrite and covetous and of those who evade the labor tax as well as the land tax about one-third are priests.

"Not only do they violate the Canon, but some of them are forgers and thieves.

"When I was the Governor of Bitchiu, I tried to enumerate the population of one country. Two hundred and fifty years ago, there were 20,000 militia; 148 years ago, 2,000; 53 years ago, 70; in my time, only 9. I hear that at present there are none. From this fact, we may easily judge, how the whole country has suffered from such excessive burdens. I humbly hope that the government will strictly punish lawless priests and withdraw all given privileges, and send them back to their original employment as farmers.

"The whole taxes of the two provinces should be spent for the improvement of the harbors and of the channels between Japan and Corea. The lands given to the University, (*Digaku*,) should be restored to it. National peace and prosperity rest upon intelligent men. To have such an intelligence, we must promote education. Nowadays people look upon the University as a place of misery and starvation."

There was a system which may have been introduced from China, by which official positions were sold for money, under pretence of meeting the deficiency in the national revenues.

In 1186, the first founder of the Shogunnate, Yoritomo, established a military government in Japan. He selected 66 representatives of the 66 provinces from among his retainers,

corresponding to the king's sheriff in England, and for the purpose of keeping the peace. Their duties were to collect taxes and arrest conspirators and robbers. And he had also succeeded in appointing chiefs in every *sho-yen.* In ancient times, the Mikado's government used to give uncultivated land to the court nobles for pleasure houses. These lands were called *sho-yen* and enjoyed exemption from taxation. After a course of years, nearly all the rich lands were occupied by the powerful feudal clans and the churches under the name of *sho-yen.* The Mikado's government was struggling under financial difficulties. Yoritomo's plan was to break up these privileged feudal clans. An extra tax of 5 *shoes* of rice on every *tan* was levied for the support of the army. These plans are said to have been the first usurpation of the Mikado's power. During the splendid administration of Hojo's family, the land laws were modified and it was enacted that the land cultivated by individuals might be sold at their own pleasure, but the lands assigned by the government were forbidden to be sold. The duration of mortgages on land should not be over 20 years, within which period the mortgager was under strict obligation to settle the affairs.

In the first decade of the 15th century, awful calamities occurred throughout the empire. No record in our history can compare with the wretchedness of the country at this time. While the whole country was suffering from successive civil wars, the tyrannical and selfish monsters, the *Shoguns* of the Ashikaga family, and particularly Yoshimasa, spent the public money in extravagant luxuries. The ratio of taxation had increased year after year, and the cultivated lands are said to have been converted into wilderness. The farmers fled leaving houses and lands; the poorer people were dying of starvation. The wine he drank was spoken of as the blood of the people, and the materials of his palaces their flesh.

We are told that it had been a custom, during his grandfather's reign, to exact compulsory loans from rich merchants four times per year. His father did this twelve times a year.

In his own time it was done eight or nine times a month! Not only so, but as he could not find means to repay such enormous debts, he anticipated modern ideas by repudiating his own debts and those of his subjects at once.

His proclamation declares that "hereafter all debtors shall be free from all obligations!" Even the modern socialist would be amazed at the proposal of so bold a measure. Of course, all mortgagers were obliged to return the land to the former possessors without receiving any compensation. It is said that this plan was to equalize the distribution of property, instead of making the poor richer. However, hard workers and economizers were losers and lazy and careless debt-makers were gainers.

Strange to say, however, in that time, it was called an act of "benevolent administration," which reflected honor in his era. It is hardly to be imagined how the people managed to live under such a government, so lawless and burdensome.

In the first decade of the 16th century, the ambitious *Shogun* Taigo came into power. After he had brought the whole of Japan under his sway, he sent unnecessary filibustering expeditions against Corea. He built Osaka castle, the largest and most expensive work of its kind in Japan. As a consequence, he was unable to find the means to defray these heavy expenses. He changed the former system of land tax; or rather he diminished the *tan* from 360 *ho* to 300 *ho*, while he exacted the same amount of tax from the new *tan* as from the old. In a word, he increased land tax by one-sixth.

It is said that during his reign land tax amounted to 60 or 70 per cent. of the produce of the soil! It must have been the heaviest land tax ever imposed upon any peasantry in the world.

During the 300 years of the peaceful era of the Takugawa line of *Shoguns*, the taxes generally were lightened more than under that of Taigo. But the feudal system being in full force, every lord had his own system of laws within his territory. The time of payment, the manner of payment, the quantity to

be paid differed astonishingly in different territories. Even in the immediate territories of the Shogunnate the tax system was not uniform. Tokugawa's administration modified the laws concerning the land-holders and tenants. These statesmen seemed to have taken great pains to regulate these systems. Among them it was enacted that when the period of mortgage in land was expired the lease shall be re-written and also the amount of tax to be paid by the tenant shall be added to the principal with the interest of 15 per cent. annually. After the lease was re-written interest could not be charged on the said principal. And the mortgager had to return 15 per cent. annually to his creditor for his debt. When the debtor returns the whole sum of the principal, the land was to be the property of the debtor. At the same time the officials of the district had to sign the paper to certify its genuineness, and they were under as heavy penalties of fraud and mistake as the mortgager.

"The raising of the denomination of the coin has been the most usual expedient by which real public bankruptcy has been distinguished under the appearance of a pretended payment," says Adam Smith, who calls it "a juggling trick." Tokugawa's administration played this "juggling tricks" frequently, instead of raising the rate of tax, or making public loans.

There was a certain kind of tax paid only by the rich part of the community, which I may call "a compulsory public subscription," that is to say, the government forced the rich citizens of a city or town to make such subscription for the public treasury as the government asked for. This corresponds to the English "benevolences," under the Tudor Stuarts.

It might be considered a tax upon the profits or the privilege of trades or manufactures.

The income of the hereditary lords of the provinces or territories was expended not only in paying the ordinary expenses of administration, but also in the support of the *Samurai*, or knights, who formed at once a military caste and a standing army.

Their income as well as the emoluments of officials were taxed in some territories. It is said that the poor lords levied 30 or 40 per cent. on the income and emoluments of the officials and the knights.

In Japan as well as in China, Rome, India, and other ancient nations, the poor were constantly in debt to the rich who used to lend them money at so high a rate of interest that it soon amounted a sum too great for the debtor to pay. The result was that the poor were obliged to surrender their lands to meet this obligation. But men of high rank and the *Samurai* in Japan were prohibited from engaging in trade or from intermarriage with the common people. As a class, they despised money. Money matters were considered the business of lower class. The spirit of the Japanese knight in this regard was like that of the Spartans. His duties were in the lines of military discipline, politics and literature; and this continued to be the case until the recent abolition of the feudal system. For this reason, the common people did not suffer so much from encroachment upon their lands or from interference with their private affairs by men of high rank, as was the case in England, and other parts of Western Europe.

Previous to the Restoration of 1868, and even for five years afterward, each of the *Dimios* possessed independent administrative power as regards his own territories, and it naturally followed that the system of taxation both as regards the trouble of collection and the relative severity of the burden on the taxpayer differed widely in different parts of the country. Prior to the Restoration, it was common that the building grounds in large cities were exempt from land tax.

In 1873, the great reform of the land tax commenced; and also at the same time were abolished over a thousand kinds of miscellaneous taxes. From this time the whole people were brought under a uniform law of taxation.

Under the tax system which the Mikado's government inherited from the Shogunnate and its *Dimios* there were 1874 various kinds of taxes. At the present time, there are 40

varieties of tax, which may be classed under ten principal categories, as follows, yielding in 1882 the revenue specified:

(1)	Land tax,	$42,000,000
(2)	Custom duties,	2,600,000
(3)	Companies,	300,000
(4)	Ship and boat tax,	100,000
(5)	Tax on production of the Yezo Island,	750,000
(6)	Excise on Alcoholic liquors,	10,400,000
(7)	Tobacco excise,	300,000
(8)	Stamps and postal cards,	1,400,000
(9)	Stamps on ruled paper for petition,	800,000
(10)	Vehicle and carriage tax,	300,000

Of these ten species of tax, the land tax is the most important bearing to the whole taxation of the country, the following proportion in the fiscal year 1879–80 the whole amount of taxation was $55,550,000 of which the land tax yielded $42,000,000 or a trifle less than $\frac{8}{10}$. This shows that the principal revenue from taxes is derived from the land.

Before the abolition of the *Hans* and the *Dimios* there were astonishing differences between the rate at which the land tax was levied in different parts of the country. The heaviest rate was $\frac{7}{10}$ of the annual quantity harvested by the peasant, the lightest being $\frac{3}{10}$ of the produce. The land measurement was also varied more or less in different systems, this was the reason why, in 1873, the government undertakes the great reform of the Land Tax Commutation Act. The principal of this revision was as follows:

The average was taken of the actual yield during five years, and valued at the average price obtained during the same period. This being taken as the profit on the land, furnished a basis for calculating the capitalized value of the land itself, and the land tax was fixed at 3 per cent. on this value. It was also enacted that a re-settlement should take place every six years.

If these arrangements be translated into the languages of the old system, it would be equivalent to "$\frac{3}{10}$ to the lord, $\frac{7}{10}$ to the cultivators;" so that compared with the heaviest rates under the *régimé* it amounts to an abatement of $\frac{3}{10}$ or $\frac{4}{10}$.

Popular opinion still felt that it was unjust to make the peasant alone bear this burden of heavy taxation. In 1877, there was a further reduction in the land tax of one-sixth. The loss to the revenue through this abatement was abont $8,200,000.

In the present progressive condition of Japan, it will be necessary to extend the government's functions. In doing so, an increased expenditure on the part of the government is unavoidable, while the national currency has enormously depreciated, and the domestic trade and industries are dying away before foreign competition. Every kind of taxable property is taxed at present at the highest rate possible. Especially heavy burdens fall upon the farming class. Year after year, balance of trade stands against Japan and the specie of the country is drained abroad to pay this.

In this condition of the state, by what means can the Japanese government obtain additional revenue? Aside from the intrinsic merits of the policy of protection or of free trade, it manifestly would be expedient for Japan to collect a large revenue in the form of customs duties. Since England compelled the helpless Japanese to lower duties from 20 per cent. to 5 per cent. *ad valorem*, the rate has been so low as scarcely to pay the expense of collection. Again and again, demands for an increase of our tariff duties have been refused by England and other European powers.

"The increase of tariff," (to 20 per cent. on woollen and cotton goods,) says the *London Spectator*, "would make it practically prohibition to the foreign trade generally, to ours in particular." The Japanese cannot expect us to agree with them when they advance unreasonable pretensions and ignore the teachings of all experience in their demands. "What are these unreasonable pretensions?" Japan alone is to be forced to keep her ports free against her will, because it is to the interest of Great Britain to force her goods upon her, and because she is not strong enough to resist.

In 1880, Japanese duty, collected upon all English imports,

was $960,000, while England collected over $2,660,000 in customs duties upon Japanese tea and tobacco alone.

An English Chamber of Commerce sent to the government a statement against the proposal to allow an increase of the duties in the Japanese tariff, saying that, "if the Japanese government wants more revenue, why will she not put it on her export?"

"It can be easily done." The proposal is absurd. Even at the present time we are obliged to collect revenue from our exports to meet the payment of the foreign debts. These we cannot increase without making our commercial situation even worse than it is. Let the world judge "with what injustice our fair claims are met, and under what tyranny the Japanese people suffer." Is it wonderful that the Christian religion has made very little impression upon the higher classes in Japan?

In 1868, at the period of the Restoration, the whole of the revenue from ordinary sources amounted to no more than $3,660,000. And as the territorial nobility still continued to exercise the powers of government within their district, the Mikado's government was not able to obtain from them more than an annual contribution of about $7,000,000 for military purposes. Consequently, the government was forced to issue paper money to meet deficiencies recurring year after year, until the amount of this paper money reached $150,000,000. Among the expenses thus met was war expenditure, such as the expenses of the expedition against Formosa and the complications with China, and those for the suppression of several insurrections of the *Samurai* class. Between 1868 and 1880 this item amounted to about $40,000,000.

Beside this, great liabilities were incurred in the commutation of the hereditary pensions, formerly enjoyed by the nobles, the military class and *Shinto* priests. The bonds issued for the pensions amounted to more than $202,000,000.

These are, unquestionably, burdensome upon the people. But if this reform had not been effected, the annual expenditure must have been burdened with a permanent charge of pen-

sions much larger than interest paid on the bonds into which those pensions were commuted, and which constitute a public debt redeemable at a fixed period.

Russia has acquired a great reputation by the Ukase which emancipated her serfs and assigned them allotments of lands, while asking the payment of the price of these lands, in the form of an annual instalment. The Japanese may claim a higher credit for effecting a peaceful revolution than Russia enjoys. The Mikado's government gave all lands, which formerly used to belong to the nobles, *Samurais* and priests, to the peasants, without converting them into a public domain or exacting any compensation whatever from the people thus benefited, and while at the same time, the government compensated by large pensions the former possessors of lands. For that reason, the government was obliged to contract a large national debt in carrying out a policy of justice to both parties. By this settlement, the peasants receiving lands worth five times as much as the bonds given in commutations of pensions.

Since the Restoration, the financial system of Japan has been managed loosely and without a proper regard for the principles of national economy. Great sums of money have been wasted in partisan jobbery and to the enrichment of rings. There is no excuse by which the government can vindicate itself from criticism in the matter. We are glad, however, to be able to say that of late the government is undertaking a strict control of the national revenue,—a "Control Department" which supervises the national expenditure having been established for this purpose.

The sources of national income may be divided into two classes, viz., public and private property.

The public property from which the Japanese sovereign may draw revenues is as follows: Forests, domain, ship-building yards, arsenals and power mills, ships, factories, light-houses, telegraphs, railroads and mines.

The public lands are divided into four classes: (1) That which is exempt from land tax, as well as ward, *Ku* expense,

such are imperial palaces, the sites of national shrines and the like. (2) That which is free from land tax, but has to pay ward expense, such are the building sites given branches of the Mikado's family by the Emperor, and all grounds occupied by the official buildings and for public uses. (3) That which is free from all tax as well as ward expense—mountains, hills dykes, the beds of railroads, tracks, telegraphs, light-houses, hospitals, parks, libraries, and the districts assigned for foreign residence. The foreigners who are living in Japan do not contribute any tax for their own protection, but they find plenty of things to complain of. We have demanded that they shall become tax-payers, but we are always met by a categorical refusal. Are these Japanese demands also "unreasonable pretensions?" (4) Those which are free from land-tax, but have to pay ward expense—public schools, hospitals, technical institutions and house of collections, etc.

The private lands, which enjoy no exemptions, are classed as follows:

	Area.		*Valuation.*
Rice fields, ...	2,622,582	*cho.*	$1,221,600,000
Farms, ...	1,848,481	"	267,100,000
Building lands, ...	375,812	"	133,200,000
Forest lands, ...	547,318	"	15,000,000
Meadows lands, ...	828,199	"	1,800,000
Miscellaneous, ...	15,060	"	2,400,000
	10,697,453	"	$1,640,900,000

The tax derived from the above lands is $42,500,000 for national and $12,000,000 for local purposes.

Beside the general taxes of the state there are in all or most countries local taxes, to defray any expenses of a public nature, which it is thought best to place under the control or management of a local authority.

When the government abolished the feudal system which had lasted for centuries, it was certainly necessary to establish a strong central authority controlling every power under one administration. But the process of centralization has gone too far; consequently it has destroyed local prosperity and crushed

out local industry. The central government is becoming aware of this mistake and has restored certain powers to the provincial government.

The functions discharged by local authority are as follows; (1) police; (2) roads, bridges, canals, etc.; (3) salaries and expenses of the representatives of the provinces; (4) board of health; (5) schools; (6) the public buildings; (7) salaries of officers and expenses of counties and wards, respectively; (8) hospitals and subsidies for the encouragement of agriculture.

The local governments are allowed to levy a land tax not exceeding one-fifth of the national land tax, on the basis of the valuation made by the national government; and also to impose excise, license, house and miscellaneous taxes. To give an example, the government of the city of Tokio receives an appropriation of $220,000 from the national treasury, and obtains $490,000 from its land tax, and $870,000 from other sources. This is a general view of distribution of taxation between national and local governments.

In the United States, the attention of the public has been so strongly directed during the past few years to the evils of alarming debt which infest states and municipal governments. England, France and other nations suffer from the same evils to a greater or less degree. It is often said that Japan suffers under a heavy debt. This is true, but the connection between the national and local finance must be observed here.

Since the government of Japan assumed all the debts, which had been contracted by old *Dimios* and *Hans* as its own, and placed a restriction upon them in regard to incurring new debts, there is no other debt than that of the nation in Japan. This has been a merit of the centralized government. From a financial point of view, therefore, the Japanese taxation system has been greatly improved since the Restoration.

SHIRO SHIBA.

Early American Land Tenures.

GREAT as has been the influence upon society of the ownership of the soil, the character of its distribution among the individuals of a nation, and the forms of tenure by which it is held, they seem seldom to have received the recognition due to their importance as factors in history until within the last half century. During this period, however, scarcely any other part of the fundamental constitution of society has been more carefully studied, and the study of none has yielded more interesting and suggestive results. The rise of individual holdings from the old communal tenure, the agrarian problems that have continually confronted governments, the effect of land hunger in causing emigration, the propositions for an entire change of land policy recently made, with other questions which cluster about land-holding, now make up one of the most important branches of the modern study of social science, and are universally recognized as among the most important of historical influences.

The part which land-holding has played in our own history has, however, never yet been sufficiently brought out. The work of the historian of America will not be thoroughly done until he has included its land history in his volumes. He must teach us to realize how the plentifulness of land in this country has exerted an almost magnetic attraction upon the disinherited masses of the Old World; how the descriptions by the early explorers of the "goodly land" beyond the sea brought over the first pioneers to conquer our forests, and how the reports sent home to the same masses by their friends here still bring over to us nearly half a million immigrants yearly. He must point out how strong and constant through all this time has been the influence on our history of the great area of our unoccupied land, which has been always open as a last resort to those who have become sufficiently dissatisfied with the condi-

tions of life in the older parts of the country to endure the hardships and sacrifices of occupying new land. He must trace out the origin and character of our land tenures from the combination between the traditional customs imported from the old country, and the changed circumstances found in the new; discover the influence of the distribution of land in the different sections of our country upon the character of the corresponding peoples, and trace out from their beginning those new questions of land policy that have arisen among us. To collect a few of the facts bearing upon this aspect of early American history is the object of the present paper.

As showing the different ways in which land-holding can develop from the same beginnings, it is worth while to notice the contrast between the conditions of land ownership at the present time in England and in the United States. In this country the transfer of land from one owner to another is a matter of the most simple and ordinary character, and is an everyday occurrence in all parts of the country, while in England it is attended with so much difficulty, expense and raking up of old titles that real property does not change hands, except for more considerable reasons and at much longer intervals than with us. It is computed that the necessary expenses attending the transfer of ownership of even the smallest piece of land in England are not less than £60. The common method in this country has always been simply by a deed of bargain and sale, and a compulsory subsequent registry in a public register, a process that requires but little time and nominal expense, and has been found sufficient for all the needs of a complex society. Partly as a consequence of this easy method of transferring the ownership of land and of its comparative cheapness, partly from the traditional love of independence in the American people, it has always been customary among us to own rather than rent land, while the opposite is true of England. In the latter country most of the land is held by a few great owners, in the United States farming land is almost universally owned by those who occupy it. Again,

in England all the land is still considered in law to be held of some lord, while in America all tenures have been resolved into a universal allodial ownership. This contrast is evident from the following laws and judicial decisions of the respective countries. A law of Edward III., still on the statute book, declares: "That the King is the universal lord and original proprietor of all land in his kingdom, and that no man doth or can possess any part of it, but what has mediately or immediately been derived as a gift from him, to be held on feudal service." The United States Supreme Court, on the other hand, has decided that land purchased from our government, is held in fee simple, and by an allodial ownership, and the same tenure is declared in several of our State constitutions to be that by which lands are held in that State. Moreover, titles to land in America, thanks to compulsory registration, are in general clear and secure, while in England titles are admittedly in such a chaotic state that land legislation has been retarded for generations by the unwillingness of Parliament to stir up the question of the titles by which the estates of its own members are held. When it is remembered that these two conditions of the ownership of land, in England, feudal tenure, concentrated possession, confused titles and difficulty of transfer; in America, allodial ownership, widely distributed possession, clear titles and ease of transfer, have arisen from the same source, and that their separate development has been a matter of less than three centuries, it is evident that strong forces must have been at work in causing the divergence; and, since the greatest changes from the old tenures have been in America, it is in this country that we must look to find the character of those forces.

It is fortunate for America in more than one respect, that after its discovery a century passed away before the beginning of its colonization by Europeans. That century was a period of great change and growth in Europe, and by the later colonization much of the progress that had been made in England appeared in the very foundations of our communities instead

of being afterwards imperfectly grafted on them as colonies already established. It is one of the lessons of Greek history that the colonies did not, as a general thing, share in the later progress of the mother city, but only developed such character as they had brought with them at the first. If colonies had gone out from the England of Henry VIII., they would not only have lacked such political and religious liberty as they actually took with them, but in all probability there would have been none of those definite provisions for the secure tenure of land which, by the time of the Stuarts, had become a privilege too generally acknowledged to be ignored in the colonial charters. If the patent granted by Queen Elizabeth had become the foundation of a colony, its lands would have been held from the monarch of England *in capite*, and thus have been still one degree less free than by the later provision of holding from the king as lord of a certain manor.

Moreover, during this century and the next, there was a distinct moral advance evinced, as far as regards our subject, by the more humane provisions of the later colonial organizations for the treatment of the Indians. The royal patents and charters themselves, however, scarcely recognize the existence of the natives of America at all. From the commission of Ferdinand and Isabella to Columbus, and the Bull of Pope Alexander granting the new discoveries to the same monarchs, down to the charter of George II. to the Trustees of Georgia in 1732, all jurisdictions, ownership of soil, and privileges are granted with entire disregard of native claims. But in the treatment of the titles of the Indians by the colonial authorities themselves there is a steady improvement from the times of mere conquest down to the formulation of Indian rights to soil by the United States Supreme Court. This is of importance in our land history, from the fact that in reality the aborigines were the first lords of the soil, and there could not properly be any clear titles until their claim was extinguished. The royal charters and patents, as has been said, made no provision for this extinction, but the colonists themselves, of course, found

it necessary to adopt some line of policy toward such claims. The policy adopted in different colonies and times varied all the way from conquest and fraud to fair and voluntary purchase and sale. Raleigh's fated colony in Virginia took possession of the soil without the agreement and against the will of the Indians, and partly as a result of this action, perished before the next year's expedition reached it. The first permanent settlement in Virginia was also made without any formal arrangement with the Indians, and immediate hostility was only averted by the firmness and wisdom of Captain John Smith. The later history of this colony presents a continual acquisition of lands from the natives by conquest. The first settlers of New England, those at Plymouth, found the land lately desolated by a pestilence, and therefore uninhabited, and their occupation of it was readily agreed to by the surrounding tribes. The colonies planted in New Hampshire found those coasts desolated by the same pestilence and internal wars, so their first steps did not involve the question of Indian titles. In the case of Connecticut, the settlers found the Indians already so confirmed in their hostility to the whites that there was no question of occupying the soil except by violence, and the miniature war with the Pequods settled the claims of the new comers to the soil as far as its original possessors were concerned. The fortunate colony of St. Mary's, the earliest settlement in Maryland, secured its first lands by a grant from the Indian inhabitants of the locality, who were just on the eve of migrating to the interior on account of hostile neighbors, and the right of further preëmption of the soil was soon vested in the Proprietary.

But the first formulation of a deliberate policy of justice in extinguishing the Indian title was made in 1629 by the Puritan corporation of Massachusetts Bay in its instructions to Governor Endicott. Part of these instructions ran as follows: "If any of the savages pretend right of inheritance to all or any part of the lands granted in our patent, we pray you endeavor to purchase their title, that we may avoid the least scruple of

intrusion." Seven years later, when Roger Williams, an exile from Massachusetts for conscience's sake, was about to found the haven of Providence, he obtained a deed from the chiefs of the Narragansett Indians which made him the undisputed possessor of an extensive domain, and a year or two later the founders of another colony in its vicinity received as a free gift from the friendly nations the fertile Rhode Island.

The first colony of Swedes which settled along the western shore of the Delaware River purchased that tract of land from the Indians and a formal deed was drawn up, to which the Indian chiefs subscribed their hands and marks. The ownership of this land was vested in the crown of Sweden, and in succeeding documents the Indians are referred to as the rightful lords of the soil. The same policy was pursued by the later English and the Dutch settlers along both shores of that river and the Hudson. Many secondary grants of lands were made with the proviso that Indian titles should be equitably extinguished as, for instance, the Patroon grants of the Dutch West India Company. Thus, unfortunate as the relations between the settlers from Europe and the native Americans afterwards became, the very first intercourse with the latter, as regards possession of the soil at least, was prevailingly considerate of their claims.

Such being the course of extinction of the native title to the lands which furnished a first foothold for the early colonists, it remains to see what provisions the home governments had made for the possession of a legal title by the colonists.

In order to understand the provisions for the holding of land made in the colonial charters, it is necessary to take a glance at the historical land tenures of England. There were four different forms of tenure prevalent before the year 1660, all of them arising naturally from the feudal system. All lands were supposed to be held either immediately of the king or mediately of some lord who, himself, held of the king as lord paramount. Each tenant performed certain services for his lord as a return for the use of the land, and these services might be in character either honorable or base, and certain or

uncertain. Honorable or free services were such as were not unbecoming the character of a freeman or soldier to perform, as following his lord in war, or paying a sum of money, while base or villein services were those fit only for a person of servile rank, such as working on his lord's farm. Again, certain services were such as had a definite time and quantity which should not be exceeded under any circumstances, such as paying a fixed rent, or doing a certain number of days' work. Uncertain services, on the other hand, were such as had no fixed time or extent, depending on unknown contingencies. Of this sort was the service of furnishing men to follow the lord to war, whenever called upon, or of paying an assessment on the same or other uncertain occasions. From the combination of these kinds of service arose the four forms of tenure. If the services were free but uncertain, the tenure was known as that by knight's service. This was the most universal and was esteemed the most honorable of all tenures, though it was at the same time the most burdensome. The actual accompaniment or furnishing of men to accompany the lord in war and homage, which were the conditions of this tenure, were the least part of the burden that it involved, since the feudal superior lords, especially the king as lord paramount, had succeeded in adding to it the following consequences; first, the payment of *aids* or assessments to defray the expenses connected with the knighting of the lord's eldest son and the marriage of his eldest daughter, to pay his debts and to ransom his person; secondly, *relief*, or a fine paid upon the acquisition of an estate by a new tenant; thirdly, *primer seizin*, the first year's profit from an estate obtained by inheritance; fourthly, *wardship*, that is, the enjoyment of the profits of an estate during the minority of its heir; fifthly, payment of fines for the refusal by a ward of a marriage arranged by the lord or on one being consummated against his wish; sixthly, fines on *alienation*, and lastly, *escheat*. The hardships of these services were the cause of many of the early struggles between the kings and the barons, and their uncertainties were modified by successive

charters until this whole form of tenure, after having been suspended during the time of the protectorate, was finally abolished by the statute 12, Charles II., in the year 1660.

The second form of free tenure, that in which the land was held on payment of a certain definite service, was a much more favorable one to the tenant, though in the days of the military spirit esteemed less honorable. It seems to have been a remnant of the old Saxon tenure, and on account of its freedom from uncertain and arbitrary exactions was looked on with growing favor through all the later middle ages. The conditions of such holdings were almost always fealty, homage and an annual payment. It had but few of the incidents belonging to tenure by knight's service, and these were made certain and definite in amount. Even by the time of the earliest charters given to the American colonies the attainment of this form of tenure had become an object of general effort and desire in England, and before the last were given it had been made by Charles II the universal form of free tenure. This was the general tenure of land in the colonies as provided for by the royal charters and habitual with the Proprietaries.

Of the two forms of villein tenure, that by villein socage where there was a regular payment but of servile nature, was not formally provided for in any of the charters, but existed in this country in the case of the public servants of the incorporated companies. The subordinate forms of socage tenure, such as *copyhold*, where the estate was held of the lord of the manor at his will, but guarded by custom as shown on the books of the manor court, and *burgage*, a form which only applied to ancient boroughs, seem never to have been introduced into this country. The tenure by pure villeinage, where the tenant was obliged to perform any kind of service at all, whenever called upon by his lord, and thus but one degree removed from slavery, had practically passed out of existence in England long before the times of American settlement.

Of all these tenures, that by free socage was without doubt the most favorable, and in the sixteenth century, when the

excessive military spirit had died out of England, it came to be looked on as equally honorable with that by knight's service. Moreover, the latter tenure was one that could with difficulty be preserved at a great distance, while any profit that came to the lord from his lands granted by socage tenure, could readily be collected even from across the sea. Thus the necessity of offering a favorable tenure as an inducement to emigration, and the remoteness of the lands granted alike suggested tenure by a regular payment as the proper one for the colonies.

The charters and patents granted by the monarchs of England, France, and Sweden, and the States General of Holland, under which settlements were made within the borders of the thirteen colonies, were about thirty in number, some of them successive grants of the same territory to three or four different persons or companies, others grants of the same territory by different governments, given under the most various circumstances from 1584, the date of Elizabeth's grant to Sir Walter Raleigh, down to the Georgia charter of 1732. These grants of lands in America were made by the European governments on the theory that when new countries were discovered and explored, they became a part of the national territory under that government to which the explorer owed allegiance, and so were subject to allotment and grant by the crown upon whatever tenure and other conditions it should choose.

Elizabeth's charter to Raleigh does not name the tenure, by which he and his heirs should hold the lands which were to be settled, but directed that they should be holden of the Queen and her successors by homage and by payment of one-fifth part of all the gold and silver which should be mined, and that all such lands should remain ever within the Queen's allegiance. This was a tenure by free socage, but being direct from the crown was a tenure *in capite*, a form which had come to be almost synonymous with the worst abuses of feudal land holding. It gives permission, however, to the grantee to dispose of any or all of the lands to be discovered "in fee simple

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or otherwise, according to the order of the laws of England, as near as the same conveniently may be." But the settlements undertaken under this charter all came to an untimely end, and it was not until the Tudors had been succeeded by the Stuarts that the series of charters, under which colonies were actually founded, commenced.

The first charter of Virginia, granted by James I. in 1606, and that of 1609, which completed its provisions, became the models for all succeeding English charters. The latter of these creates the first colony of Virginia a corporation, under the title of "The Treasurer and Company of Adventurers and Planters of the City of London for the First Colony in Virginia." It grants to this corporation all the lands included between the points distant 200 miles North and South respectively from Old Point Comfort. "To have and to hold, possess and enjoy all and singular the said lands, countries, and territories, to the sole and proper use of them the said Treasurer and Company, their successors and assigns forever; to be holden of us (the King), our heirs and successors, as of our manor of East Greenwich in the County of Kent, in free and common socage, and not *in capite;* yielding and paying to us, our heirs and successors, the fifth part only of all ore of gold and silver that shall be there gotten, had, or obtained, for all manner of service." Thus the most favorable form of land tenure then known in the Old World became the typical form for the New. To see the meaning of this provision, it is well to notice that at the time the charter of 1609 was given, there were in England 160 temporal and 26 spiritual lords, 800 barons, 600 knights, and 3,000 esquires who held their lands direct from the king by knight's service, burdened with most of the exactions of feudalism. The effects of different land tenures were at that time well recognized in England, the Poor Laws had become the most important laws of the kingdom, and the terrible extent of vagrancy pointed clearly to the desirability of an outlet through emigration, thus dictating the favorable terms invariably offered to it.

The succeeding charters to Virginia, those under which New England was settled, and the Proprietary charters of Maine, New Jersey, Pennsylvania, Maryland, the Carolinas, and Georgia made provisions for essentially the same form of tenure, that by free and common socage, all of them, especially excluding tenure *in capite*, and many of them expressly disclaiming any knight's service. Various manors are mentioned in the later charters as the sources of tenure, and different rents are specified, though the latter are almost without exception merely formal. Thus William Penn as Proprietary of Pennsylvania and Cecil Calvert as Proprietary of Maryland, held their lands of the King in free and common socage, as of his manor of Windsor in Berkshire, the former on a rent of two beaver skins to be delivered at Windsor Castle on January first of each year, besides the usual fifth of all gold and silver ore, while Calvert and his heirs were to deliver annually at the same place two Indian arrows of those regions, as an acknowledgment of the tenure of their lands from the King.

A grant by Charles I. of the territory of Maine to Sir Fernando Gorgas, in 1639, is made on the usual tenure with a rent of one quarter of wheat and one-fifth of the clear yearly profits of all gold and silver mines and pearl fisheries. The wide grant made by Charles II. to his brother James, Duke of York, in 1664, was given on a tenure of free and common socage and payment of forty beaver skins annually, if demanded. The Proprietary grant of Carolina by Charles II., in 1663, is made on condition of the payment of a yearly rent of twenty marks and one-fourth of all gold and silver ore. The Trustees of Georgia, whose charter came from George II., in 1732, were to hold the land from the King on the same tenure and of his manor of Hampton Court, in Middlesex; but colonization of America was by this time a demonstrated success so the somewhat more thrifty rent of four shillings for every 100 acres settled was made the condition of holding.

These charters also provide for the further distribution of the lands thus granted by giving the fullest liberty to the

grantees to dispose of them in whatever way they might see fit, reserving only allegiance to the King. The form of such permission is much the same in all the charters, and the following may be taken as typical of all: it is from the grant of Carolina to the Earl of Clarendon, the Duke of Albemarle, Lord Berkeley, and others. It gives them authority "to assign, alien, grant, demise, or enfeoff the premises or any parts of them to any that shall be willing to purchase, to have and to hold in fee simple or fee taille, or for term of life, of lives, or of years; of the Proprietaries by such rents, services, and customs as shall seem to them meet, and not immediately of the King; and these purchasers shall have the right to take lands so, the statute 18, Edward I. known as *quia emptores terrarum*, or any other statute to the contrary notwithstanding," The statute here referred to was a law passed in the time of Edward I. designed to put a check to the system of excessive subinfeudation which was depriving the greater lords of many of the valuable payments incidental to feudal land holding. It provided that after land had once been granted by a lord of a manor, the grantee could not sub-let it as being held from himself but upon his disposing of it in any way the feudal rights reverted to the original grantor. The suspension of this statute in the colonial charters enabled the settlers to hold their land from the Proprietaries on their own side of the water instead of from the English King and thus tended both to bring about an actual ownership of land, and to foster a spirit of independence. It was one of the most important of those influences that led to the wide distribution and allodial ownership of land which have been characteristic of American land policy.

In most of those charters which granted lands in America to certain Proprietors, a provision was inserted, allowing them to erect manors with all the privileges and customs of manors in England. The principal characteristics of a manor were the possession of demesne lands, occupied by the lord of the manor, and the manorial lands, usually held on copyhold or other

tenure by tenants holding from him, and manorial courts for the trial of minor offences and settlement of disputes. Into such the proprietaries were empowered to divide up their territories, and those to whom they should grant these manors could in general grant or otherwise dispose of all or parts of them, and so on indefinitely. In Pennsylvania, however, there could not be any second infeudation, since by the terms of the charter, if Penn's grantees disposed of the manors, or parts of them granted to them, the manorial rights reverted to him or his heirs.

Thus the Proprietaries had all the rights of feudal princes over the vast extent of soil granted to them. They held these territories from the King, as of one of his manors, on account of certain payments, and the colonists were to hold their land either direct from the Proprietary or from manors created by him. In the case of the charter governments of New England and Virginia these rights over the soil, except that of creation of manors, were in the hands of the incorporated companies. In those colonies, which came under the direct control of the crown and were known as provincial governments, the possession of the soil was in the hands of the King and was administered by commissioners in his name.

Among these English charters, that given to Georgia in 1732, provides two restrictions, which indicate respectively one of the worst evils and one of the greatest advantages in colonial land holding. It restricts the amount of land to be held by any one person to 500 acres, and, secondly, it directs that all grants, leases and conveyances shall be registered. It will appear further on that no two customs of the times worked more strongly for evil and for good respectively, than the grants of large tracts of land, and compulsory registry of deeds.

But it was not English forms alone that were imported into the New World with its European population. Holland, and to a lesser degree, Sweden and France contributed their influence to the formation of our early land policy. In Sweden, where the feudal system was an indigenous production and

not an accompaniment of conquest, the pretensions of the monarch to possession of the soil never rose to the height of those of the King of England. The monarchy ceased to be elective only at a comparatively late period, and the new hereditary kings owned the soil of their personal estates and royal jurisdiction over the rest of the country only. A fief granted by the King was in Sweden simply a right to the receipt of the royal revenues and the exercise of the royal jurisdiction of a certain part of the realm, and by no means the possession of the soil included within that part. Indeed a great part of the soil always remained in allodial possession in the hands of the yeomen.

These conditions of land holding and of fiefs at home gave their character to the provisions for the same in New Sweden, the country along the banks of the Delaware River in America. The first intercourse of Sweden with America was, however, looked upon as a commercial enterprise rather than a project of colonization, and the charter granted to the Swedish West India Company by Gustavus Adolphus, in 1626, therefore does not touch the question of landed property. The only provision bearing upon land holding in this document is one giving to the company permission "to build cities, castles, fortresses, and to occupy desolate places and make them habitable." When the first colonists arrived, however, and purchased from the Indians the lands extending on the west side of the Delaware from Cape Henlopen to Trenton, the possession of the soil was vested in the crown, although the West India Company seems to have had certain proprietary rights in it. Two or three years after the first settlement, when a new company of adventurers were about to leave for New Sweden, a grant was made to them by Christina of as much land as they chose to take up, under certain conditions. Upon fulfilling these conditions its possession was guaranteed to them by royal authority, and it was also engaged that the land thus occupied should remain to them and their descendants as "allodial and hereditary property," they only to pay to the

crown as an acknowledgment of sovereignty, yearly, three florins for each family established in their territory. It is to be noticed that these adventurers were for the most part not Swedes, but Hollanders, and the payment thus required annually was not a rent, nor an acknowledgment of ownership of the soil, but in reality an acknowledgment of allegiance.

Besides this allodial possession of the soil, the right of exercising high and low justice, of founding cities, and other royal rights were granted to these adventurers and their descendants as an "hereditary fief," it being understood that they must conform themselves to all which concerned the ordinary justice of fiefs.

That Queen Christina considered these lands a possession of the crown is evident from the succession of personal grants made to individuals similar to the last mentioned one made to a colonization company. In 1647, she gives to John Printz and his lawful heirs the place called Tenekonk, (Tinicum), in New Sweden, "to enjoy it, him and his heirs as a perpetual possession." In 1653, to Captain John Amundson Besk, "on account of the zeal and fidelity with which he has served the crown, and considering that he has engaged to serve the Queen and the Crown of Sweden with similar zeal and fidelity, so long as he shall live and his strength permit him, is granted by letters-patent to himself, his wife, and his heirs, a tract of land in New Sweden, known as Marcus Hook, extending to Uplands Kyll, to keep and possess the same forever as his own inviolable property." A similar grant was made to Lieutenant Sven Schute, of a tract comprising Kingsessing. In the same year a grant was made to John Rysing, Commissary of the College of Commerce. This patent, after reciting the same considerations as above, declares that "we give and grant to himself, his wife and their legitimate male heirs and their descendants as much land in the West Indies and in New Sweden as he shall be able to cultivate with twenty or thirty peasants, ceding to him the aforesaid country with all its dependencies, etc., to

enjoy, employ, and keep the same, in the same manner, and with the same franchises as our nobles, and as a perpetual property." This grant is especially declared to be given in accordance with the statute of Norrkoping, of 1604, which provided that all grants by the crown should be renewed by the next monarch, or else should become invalid.

As an incentive to the cultivation of the soil and to the further colonization of New Sweden, the General College of Commerce in 1653 issued a proclamation giving decided privileges to colonists, of which two have reference to land titles. The first is a permission for any person to establish as many colonies as they may be able to keep up at their own expense, and to keep lands thus occupied during certain years of franchise and under good conditions. The second privilege is an assurance that any one who purchases land at a just price either from the natives or from the company, as subjects recognizing the jurisdiction of the Crown of Sweden, shall enjoy in respect to the lands thus purchased all franchises and allodial privileges, themselves and their descendants forever. But all persons wishing to enter into such possession could do so only with the sanction of the Governor in order that no one should be deprived improperly of what he already possessed. Thus all lands granted by the Swedish government in America were given in allodial possession and not in feudal tenure as those of which the title was derived from the English crown.

If the mainspring of Swedish colonization was the desire of commerce, that of the Dutch was doubly so. The Dutch were a nation of traders, and the charters under which the colonization of New Netherlands eventually took place were simply extensive monopolies of trading granted to a commercial company. The charter to the United New Netherland Company makes no mention of settlement, and the charter of its successor, the great Dutch West India Company, while it gives to it unbounded authority, provides for the colonization of the land only by permitting the company to make alliances with the princes and natives of the cour-

tries comprehended in the limits of its grant, and by enjoining upon it the peopling of those fruitful and unsettled parts. It was only after experience had shown the company the necessity for extensive colonization that provisions for land holding were made, and then they came not from the government of Holland but from the company, which was evidently acknowledged to be the proprietor of the soil. The history of Dutch land holding in America, therefore, ~~only~~ begins with the secondary grants from the West India Company, especially those to the Patroons.

When France, a country whose name is almost synonymous with feudalism, acquired possessions in the New World at the beginning of the seventeenth century, it was but natural that the feudal idea should be extended into the new territories. Consequently the title to all lands was vested in the crown, the castle of St. Louis at Quebec was made the lordship from which all tenures in New France should originate, and lands were granted only as lordships, or in socage, and not in allodial ownership. Thus great tracts of 100,000, and even 150,000 acres were granted "en seigneurie." The estates were described as being granted "in perpetuity and forever by the tenure of Fief and Seigniory, etc., etc., on condition of rendering fealty and homage at the castle of St. Louis of Quebec, from which he will hold with the usual duties and charges, according to the custom of Paris followed in this country, of preserving and causing to be preserved by his tenants, the oak timber fit for building King's ships, of giving to His Majesty all mines, minerals, etc., of improving the land, and of holding and causing to be held there fire and light by the tenant, etc." Lands were also granted by the crown to settlers "en Roture," or in common socage. There were many grants of both descriptions around the edges of Lake Champlain, territory which afterwards came into the jurisdiction of New York, but no instance of any land considered otherwise than being held mediately or immediately from the crown.

Such were the first two steps in American land holding, the extinction of the early native titles and the provisions made by the European governments for the forms of land tenure in the New World. It remains for us to follow the course by which these theoretical tenures were put into practice by the actual settlers, to find what modifications in their form were caused by the circumstances of the new country, and to see how the superstructure of the later condition of land ownership was erected upon the foundation of these preliminary forms. The best that England, the most important colonizing nation, had of land law had been granted in the charters, the most irksome burdens on the land had been removed, the interests of the land owners and the settlers were more nearly identical than ever before in modern history; and with few exceptions everything was promising for a just and beneficial distribution of ownership, a favorable tenure, and a steady appreciation of the value of the broad lands that were to be reclaimed from the forests, the swamps, and the hillsides.

But the first experiment in land holding in America was also one of the most unfortunate, another one of the many instances of the failure of communism. In two of the colonies, Jamestown and Plymouth, the first settlers were bound by agreement to hold all land, industry, and commerce as a common stock for a number of years, without individual ownership or individual profit, other than their share of the regular division for maintenance, and the final division at the end of the term of years. In the Virginia colony this provision was made in the code of laws formed by King James, and was to continue for five years. The Pilgrims for their part had been forced by the want of capital to enter into a partnership with certain London merchants, who insisted on the following agreement. The labor of each emigrant was valued at £10, as capital, ranking as one share of a joint stock company, the London merchants investing cash. All profits of the settlement were to be reserved till the end of seven years, when the whole amount thus created, and all houses and lands, gardens

and fields were to be divided among the shareholders according to their respective interests. In both colonies the experience was the same: in Jamestown, there was little labor performed and little land cleared, and consequently the first five years were years of famine, showing no improvement until the system of private property was introduced. Two years after the foundation of the colony, when the number of the colonists had risen to two hundred, not more than thirty or forty acres in all had been cultivated. The length of a day's labor was but six hours, and this was performed only under the compulsion of authority. In 1611, under Sir Thomas Gates, a wise and firm head, private property was established. To each man a few acres of ground were assigned to plant as he saw fit, and from which to reap for his own use. It is true that his ownership of this land was by no means always complete, yet the element of individual possession, security and hope transformed reluctant service into energetic and profitable labor, want gave place to abundance, and the institution of private property was ever afterwards recognized as the best guarantee of plentifulness of food and stability of public order.

At Plymouth, the contract with the company binding the colonists to a system of common property was felt as a great hardship. Even with such human material as was contained in that colony the want of the impulse of personal interest in labor was deeply felt, and positive laws were found to be but a poor substitute for it. The years 1621 and 1622 were years of famine and suffering: in the spring of 1623, it was agreed among them that parcels of land in proportion to the size of the respective families should be set aside to be planted by each for themselves, in use only, however, and not for actual possession and inheritance. The next Spring each person was allotted a small portion of land in perpetual fee, thus departing still further from the agreement with the company, under the stress of their extreme need. From this time onward there was never any lack of corn. It became a profitable article of commerce, and instead of depending on the natives for the

greater part of their supply, as during the first two years, the colonists furnished it to them regularly in exchange for beaver and other skins. At last, six years after the first settlement, the colonists succeeded in themselves purchasing the entire rights of the English capitalists; all common property was equitably divided, and private possession became the basis of ownership of land, and all other industries. Having no native title to contend with, and having a patent from the Council of Plymouth for the lands they occupied, the cultivators of the soil in this colony became actual freeholders with no rent to pay and no restrictions on their possession of land except those imposed by their own community. Thus common property in land in the colonies came to an end. It has never existed since in this country except in much later times and in a few isolated communities.

This was, however, but one of the many peculiarities of landholding in colonial days that have since more or less completely disappeared. Settlers in partial or complete servitude to the incorporated companies or the Proprietaries, manors as the sources of titles to lands, the patroonships of New York and New Jersey, the quit rents collected in proprietary colonies, and the great tracts granted in early times to single individuals, each had its history and each has exerted its influence on later times.

Simple as the form of primary tenure from the home government was in the colonies, yet there was room for considerable variation in the way in which the actual settlers held from the Companies or Proprietaries, where such existed. The conditions of the property in land of the colonists depended on the circumstances under which they had emigrated. In several of the colonies there was a class known as "public servants," emigrants who had been transported and maintained entirely at the cost of the companies, and whose service was therefore due to the company for a term of years. In Virginia, one month of their time and three acres of ground were set apart for each of them, besides an allowance of two bushels of corn

for the public store; the rest of their labor belonged to their employers. In this colony the number at first decreased, and in 1617 there were altogether of such servants but fifty-four. Afterwards, under a slightly different form, it revived; men were induced under false representations to emigrate under such an agreement to America; and, whereas their expenses in emigration had been but eight or ten pounds, their service for the five years necessary to earn their freedom became so valuable that they were resold for forty or even fifty pounds. In 1672, the average price in the colonies was ten pounds, while a negro, to the period of whose services there was no end, was worth twenty or twenty-five pounds. In Massachusetts, with the Puritan emigration came over about two hundred servants, sent at considerable expense, and bound for several years. On their arrival supplies of food were so scanty that their engagements were all cancelled, liberty given them, and permission to take up land. Under the circumstances their maintenance would have cost more than their labor was worth. In the Swedish and Dutch colonies they were numerous in proportion to the population, and in an entirely servile, almost slavish position. In general, the holding of lands by this class was discouraged and in New Netherlands it was expressly forbidden, but in all the colonies it was quite customary for the "public servants," "redemptioners," "indentured servants," or "boereknechts," as they were variously called, to take up land on the expiration of their term of service, and as a class they gradually disappeared. This kind of servitude gave way on the one hand to entirely free labor, on the other to absolute slavery.

Again, other settlers came over as the tenants of the Companies or the Proprietaries. In the early days of Virginia a number of these held farms, for which they paid an annual rent of two and one-half barrels of corn into the public store of the company, and a month's labor to the public service, provided this month were not required either at seed time or harvest. In Pennsylvania, those who took up lands under Penn on rental paid one penny per acre rent at first, but afterwards had to

take out patents and continue the same payments as a quit rent, or else pay a higher yearly rent. In the successive offers to emigrants made by the Dutch West India Company and the Holland Government, after they had discovered the necessity of colonization, provisions are made for settlers as tenants paying a rental. In 1639, it is proclaimed that the Director and Council in New Netherlands will accommodate such farmers as are desirous of proceeding thither on a six years' lease with a farm fit for the plough, a dwelling house, a barn, a suitable number of laborers, four horses, an equal number of cows, sheep and swine in proportion, with the necessary farming implements on an annual rental of one hundred guilders (equal $40), and eighty pounds of butter. In the patroonships also lands were leased for various periods, generally at low rentals, such as eight dollars, one hundred and twenty dollars, etc.

A special form of rental was that known as quit rents. These were, theoretically, not so much rents paid for the use of the lands as acknowledgments of the sovereignty over the soil in cases where this was held by a tenure of free socage. Practically, they ~~only~~ differed from regular rent only by the actual possession and right of transfer of the soil being in the hands of the one who paid, not the one who received, the rent. These quit rents existed in New York, New Jersey, Pennsylvania, Maryland and the Carolinas, that is to say, in all the proprietary colonies.

Along the banks of the Delaware the successive colonization and domination by the Swedes and the Dutch had cultivated much of the soil and settled its ownership, but they had encouraged such settlement as an adjunct to commerce, and therefore had collected no quit rents from the settlers. Indeed the Swedes seem to have given no formal deeds other than the royal grants already enumerated, and the Dutch title deeds are no longer extant. But with the proprietorship of the Duke of York, commencing in 1664, all persons were required to bring in their old grants and take out new patents from the

Governor under a tenure of common socage. As an acknowledgment of this tenure, quit rents were demanded. The amount of this payment was usually one bushel of wheat for every one hundred acres. This practice was continued until the beginning of Wm. Penn's proprietorship, when he made the quit rent to the first purchasers and those who received title from them one shilling for each one hundred acres. To later purchasers the quit rent was one half-penny per acre. Then, as land came into greater demand, one penny per acre; and in 1732, on the occasion of a great land lottery the quit rent clause on the ticket claimed one shilling per acre yearly, with one-fifth of all gold and silver, deliverable at the pit's mouth. These quit rents in Pennsylvania were collected strictly, and were the cause of much ill-feeling between the settlers and the Proprietaries.

Penn also made several grants with fanciful quit rents. For instance, he grants two pieces of land, part of the manor of Springettsburg, to Andrew Hamilton, upon payment on the first day of March in each year of *one beaver skin.* A grant to the city of Philadelphia of land for a Potter's field—now Washington Square—is made on an annual payment of *one ear of corn;* and the land on which the city of Easton now stands then a part of the manor of Northampton, was granted upon payment of *one red rose*, to the head of the family on Christmas of each year. Quit rents were abolished by the Legislature of Pennsylvania, immediately after its organization, but are considered by many to be the origin of our present ground rents.

In New Netherlands quit rents were introduced in 1638, and consisted of one-tenth of all produce of the farm, payable to the company. They were introduced on the occasion of extraordinary offers to immigrants made by the company, and approximated in character to actual rents. When this territory came under the dominion of the English, the universal quit rent of two shillings and ten pence per one hundred acres was substituted. Besides these farming lands, numbers of house lots were granted at quit rents of one and two shillings

yearly. Special estates were also held under special quit rents. Thus Penn held a tract of land from the Duke of York upon annual payment of five shillings. The manor of Livingston, in New York and its dependencies, were held at a quit rent of twenty-eight shillings. It was estimated in 1732 that if all these quit rents in the province of New York were properly imposed and collected, they would yield a revenue of £4,000 a year.

In Maryland the quit rent was two pence an acre. Besides this regular payment, in Maryland, every alienation was subject to a fine of one year's rent. In all the colonies lands were very cheap, and the quit rents were the principal payments.

A close connection is observable between the existence of quit rents and compulsory registration of conveyances of real estate. In many of the colonies this custom, which is now universal in the United States, only grew up slowly; in the proprietary colonies, where quit rents were collected, it was naturally insisted on from the beginning for the purpose of keeping trace of these.

The existence of manors as sources of land tenures arose in two ways, either from the provision for the erection of such made in the English proprietary grants, as already described, or from the patroonships granted by the Dutch West India Company. All of the early grants from the Proprietaries of Pennsylvania and Maryland were made to be held in free and common socage as of such and such a manor, this manor often being a mere legal fiction. Thus in Pennsylvania all the patents for lands in Delaware County are made, "from our manor or reputed manor of Spring Town," and likewise in other sections from other manors, as of Springettsburg, Northampton, etc. In this colony the manors were never complete, but in Maryland and in New York they seem to have been formed with manorial courts, and other jurisdiction, as in England. The patroonships were grants of lands on an extensive scale to individuals under agreement to promote the colonization of the new territory, and formed somewhat on the model

of the free manors at home, of which there were upwards of 300 in the Province of Holland alone. By this charter such members of the West India Company as should be inclined to settle a colony in New Netherlands and should plant within four years such a colony consisting of fifty or more souls upwards of fifteen years old were permitted to take possession of any tract of land they might choose, extending sixteen miles on one side or eight miles on both sides of a navigable river and extending indefinitely into the interior. Such estates or "patroonships" were to be held from the company as a perpetual inheritance, not to revert to the company, or if they had reverted to be capable of redemption on a nominal fine. Within them the Patroons had all rights over the soil and feudal jurisdiction. Under this agreement there were formed four extensive settlements, the ill-fated colony of "Zwanendael," on Delaware Bay within the present State of Delaware, "Pavonia," including part of Staten Island, Jersey City, Hoboken, and the adjacent lands, "Colendonck," further up the Hudson, and "Rensselaerswyck," on both sides of the Hudson near the present city of Albany. In this last patroonship, the only one which was really prosperous and which lasted down to the days of American independence, there was finally included under one lord and proprietor a tract of country twenty-four miles long and forty-eight miles broad, estimated to contain over 700,000 acres of land and now composing the counties of Albany and Rensselaer, and part of the county of Columbia.

This custom of granting immense tracts of land was an evil from which almost every American colony suffered more or less. In Virginia, there had been a settled amount of land for each adventurer, either in his person or by investment. He who came himself, or had sent others at his own expense, or paid into the company's treasury the sum of twelve pounds, ten shillings, obtained a title to one hundred acres of land, with a reserved claim to as much more when the first tract was actually occupied. This amount was afterwards reduced to

fifty acres in each case. Besides this, lands were granted as rewards of merit, though the amount of such grants could not be above 2,000 acres to one person. But even within these limits there was room for an aggregation of land ownership decidedly injurious to the community. Even in Pennsylvania, the most conservative of the colonies, the same mistake of granting excessively large tracts had been made. This may be seen from a letter of Governor Andross, dated in 1675, to certain of his commissioners in Pennsylvania, directing them to grant lands to any new comers who may wish to settle there and suggesting forty or fifty acres a head as sufficient. He warns them not to fall into the former error of giving greater tracts than would be cultivated, to the hindrance of others. This is also evident from the necessity found to reimpose the quit rents which had been suspended for a few years, in order to encourage persons to take up lands. People not only did take up lands under this arrangement, but took up such large tracts as seriously to retard the growth of the colony. But it was in New York and New Jersey that this evil was most extensive. Not only were there the great patroonships already mentioned, but under the English Governors, after it became a royal province, immense tracts with indefinite boundaries were given away to favorites on nominal quit rents. These grants to single individuals included sometimes as much as 100,000 acres or even four or five times as much. In a report on the condition of lands in the Province of New York, made in 1732, a number of these grants together are declared to pay an aggregate quit rent yearly of five beaver skins, one otter skin, one fat buck and twenty shillings. A number of these grants having been afterwards declared illegal, and regranted to individuals at a quit rent of two shillings, ten pence per hundred acres, payed in the aggregate nearly £400 a year. This policy not only deprived the King of his quit rents, but retarded cultivation, depressed industry, and sowed the seeds of aristocracy and inequality. New York was neither so well cultivated nor so numerously populated as Pennsylvania and other neighbor-

ing colonies, and it was just in the parts where these large grants had been made that cultivation and settlement were most backward.

As late as 1802, Rev. John Taylor, a missionary, making a tour of the Mohawk and Black River countries in western New York, complains of the land being held to such a great extent on lease from large holders, instead of being owned in severalty by the occupants. He attributes the want of ambition of the people to this circumstance. "The people are poor and too much of the land is leased. The Americans never can flourish when on leased lands, as they have too much enterprise to work for others, or to remain tenants, and where they are under the necessity of living on such lands, I find that they are greatly depressed in mind and are losing their animation"

Communism in land, indentured servants, quit rents, manors, extensive tracts under one proprietor, all have proved themselves unsuited to the New World, and to the nation that has grown up in it during this nineteenth century. They have therefore passed away. Other elements have entered with these into our land history, some beneficially, others to the detriment of society, and all have, no doubt, exerted their influence upon later history. To trace this influence, measure its amount, and point out its effect, would be only to rewrite the history of America from a somewhat special point of view.

EDWARD P. CHEYNEY.

Announcement.

Before completing the first number of THE ANNALS, a few words may be fittingly added concerning it. First of all, it is intended as a vehicle for the publication of papers, prepared from time to time by those who give instruction in the Wharton School, and by their students, that are regarded as having some permanent value. It is not intended therefore to issue THE ANNALS at stated times, but occasionally, when enough papers have accumulated in the ordinary course of study and investigation to form a number. We may add that papers from other sources, it is hoped, will be contributed either voluntarily or through solicitation.

Another object in publishing these contributions to political economy in the present form is to interest, if possible, more persons in the work of the School than would be interested if the papers appeared in other forms, or not at all. Many of our educational institutions have similar means for communicating with the public, and it is fitting for the Wharton School to have a publication of its own; the need of having one is greater in this case, because the institution is young and its work in some respects unlike that of any other.

What, then, is the object of the School? This cannot be better stated than in the language of the founder himself. "To provide for young men special means of training and of correct instruction in the knowledge and in the arts of modern Finance and Economy, both public and private, in order that, being well informed and free from delusions, upon these important subjects, they may either serve the community skilfully as well as faithfully in offices of trust, or, remaining in private life, may prudently manage their own affairs, and aid in maintaining sound financial morality; in short, to establish means for imparting a liberal education in all matters concerning Finance and Economy."

The importance of doing the work, so well described by Mr. Wharton, no one will question. The time has long past for supposing that a systematic education should be confined to languages, mathematics and a few other studies. The old education is too limited for the wants of our day. Schools for giving instruction in applied science are rising everywhere. The Wharton School seeks to cover another field of great importance and which has been too long neglected.

It is true that most of the studies embraced in the course of instruction have been taught in other institutions, but not in the same connection. Political economy, for example, has been taught for a long time

in many of our colleges; but in this School large space is given to it. The remark is equally true of the study of history and government. With respect of some of the studies, but little, if any, attention has been given to them elsewhere. This is especially the case with mercantile practice—that large body of knowledge lying between book-keeping, and political economy and mercantile law,—and which is the necessary introduction to the two latter studies. A chair also is wholly devoted to finance, administration and statistics.

From this brief statement it may be noticed: First, that the studies pursued in the School are grouped together with the view of mastering them more thoroughly and in a briefer time than could be done if they were intermixed with other studies. They are thus selected and fused into a course, because it is believed that a class of students wish to pursue them in this manner. Secondly, instruction is carried very much further in them than would be possible if they were intermixed with other studies in a course of the same length. This is obvious. Thirdly, several studies are introduced whose importance no one will question.

Another aim of the School is to teach the students to think and to investigate. Matters of research are undertaken by them, and many of the essays prepared are the result of prolonged thinking and investigation.

We have thus briefly sketched the object of THE ANNALS and of the Wharton School. The success which has attended the undertaking, proves the wisdom of the founder in establishing the School. We append the studies pursued during the last two years of the course.

COURSE OF STUDY.

The course of study extends through four years, the first two of which embrace History, English, French, German, Mathematics, Physics and Chemistry. The studies in the Junior Year are the following:

FIRST TERM.

POLITICAL SCIENCE.—Theory of the State. Public Functions. (Lectures and Text-book. Mulford's *Nation.* Selected portions of Bagehot's *Physics ana Politics.* Crane and Moses's *Comparative Politics.*) [2.*]

AMERICAN POLITICS.—First Term, Washington to Jackson. (Johnston's *History of American Politics.* Gay's *Madison.* Morse's *John Quincy Adams.*) [3.]

POLITICAL ECONOMY.—Thompson's *Elements of Political Economy.* Walker's *Political Economy.* [2.]

ENGLISH.—Critical study of Prose Writers with Special Reference to Composition (Minto's *Manual.*) [2].

LOGIC.—Jevons's *Logic.* [2.]

PHYSICAL SCIENCE.—Elementary Physics, Sound and Heat. (Lectures.) [4.]

* The numeral indicates hours per week.

BOOK-KEEPING.—The Theory and Practice of Accounting. (Lectures. Hopkin's *Manual of Exhibit Book-keeping.* Marsh's *Bank Book-keeping and Joint Stock Accounts.*) [4.]

INTERNATIONAL LAW.—Lectures. (Optional.)

SECOND TERM.

CIVIL GOVERNMENT.—Elements of the Constitutional and Administrative Law of the Federal and State Governments. (Lectures and Text-book). [2.]

AMERICAN POLITICS.—Jackson to Arthur. (Sumner's *Jackson.* J. F. Clark's *Anti-Slavery Days.*) [3.]

POLITICAL ECONOMY.—Thompson and Walker completed. Laveleye's *Elèments d'Economie Politique.* [2.]

ENGLISH.—(Same as first term.) [2.]

MORAL PHILOSOPHY.—Whewell's *Elements.* [2.]

PHYSICAL SCIENCE.—Elementary Physics, Light and Electricity. [4.]

BOOK-KEEPING.—Expositions of Systems of Book-keeping in Factories, Banks and other Corporations, and in Municipalities. (Lectures.)

SENIOR YEAR.

FIRST TERM.

EXPOSITION OF LEADING PRINCIPLES OF POLITICAL ECONOMY AND THEIR APPLICATIONS.—Compositions and Lectures. [3.]

MERCANTILE PRACTICE.—Lectures. Bolles's *Practical Banking.* [4.]

AMERICAN CONSTITUTIONAL HISTORY.—First period, 1789–1825. (Lectures. Von Holst's *Constitutional History of the United States.* Young's *American Statesman.*) [3.]

FINANCE.—Principles and Methods of Public Finance. Objects of Public Expenditure. Revenue from Public Property and Fees. (Lectures. Bolles's *Financial History of United States.*) [2.]

CIVIL GOVERNMENT.—Principles of General Constitutional and Administrative Law. Principles and Comparative Methods of Legislation. (Lectures.) [2.]

ENGLISH CONSTITUTIONAL HISTORY.—Stubb's *Constitutional History of England.* (Optional.)

SECOND TERM.

EXPOSITION OF LEADING PRINCIPLES OF POLITICAL ECONOMY AND THEIR APPLICATIONS.—Composition and Lectures. (Continued.) [3.]

MERCANTILE LAW.—Parsons's *Laws of Business.* [4.]

RAILROADS.—Kirkman's *Railway Expenditures, their Extent, Object and Economy.* (Ten Lectures.)

AMERICAN CONSTITUTIONAL HISTORY.—Second Period, 1825–1885. (Lectures and Text Books.) [3.]

FINANCE.—Principles and Methods of Public Finance. Theory and Practice of Taxation. Financial Administration. Local Finance. (Lectures.) [2.]

CIVIL GOVERNMENT.—Principles and Comparative Methods of Public Administration—general and local. (Lectures.) [2.]

STATISTICS.—Principles and Methods of Statistical Science. (Ten Lectures.)

CONSTITUTIONAL LAW.—(Optional.)*

ROMAN LAW.—(Optional.)*

PREPARATION OF THESES.

The course in the Freshman and Sophomore years is nearly parallel with that in the Towne Scientific School; but more attention is given to the study of History and less to Mathematics. Enough Mathematics, however, is required of all students to enable them to pursue satisfactorily their studies in Physics.

The instruction in political economy during the Junior year is that which is usually given to the junior and senior classes in colleges. During the Senior year instruction in this branch of knowledge is given through compositions and discussions by the class, followed by a review, exposition and application of principles by the professor who teaches the subject.

Instruction in European Finance comprises the history, and a description and comparison of the financial systems of the principal countries of Europe. American Finance comprises a history of the national, state and municipal systems, and a comparison of them with foreign systems.

The subject of Legislation and Administration is treated comparatively, including the practice of all the principal European countries and our own, beside the varying practice of the several States of the Union.

Instruction in Statistics embraces an investigation of the sphere and function of statistics, with practical training in the proper method of collecting and arranging them.

The course in American Politics, during the first term, covers the period from the formation of the Constitution to the close of Jackson's administration. This subject is studied with the aid of text-books and special works; and essays are required on collateral topics. The Senior year is devoted to the Constitutional History of the United States. Much of the work is done by the students in libraries. A series of lectures is given on the more important Constitutional question, and essays thereon are prepared by the students and read in the class-room.

Instruction in Railroads pertains to their organization, cost of construction and operation, and their relation to other industries.

* These courses are given in the Law School, but are open to Wharton School students.

Mercantile Practice covers the usages and methods of business, the management of property and administration of trusts, and is supplemented and completed by an exposition of the leading principles of Mercantile Law.

Practical Book-keeping is taught orally and by requiring each student to keep a set of books according to the most approved forms.

EXAMINATIONS FOR ADMISSION AND ADVANCED STANDING.

Candidates for admission to the Freshman class must pass the same examination as is required for admission to the Course in Philosophy. Students in the Department of Arts, the Towne Scientific School or the Course in Philosophy who enter the Wharton School Course at the beginning of the Junior year, receive, at graduation, the degree of A. B., B. S., or Ph. B., according to the course from which they have come. Students from other colleges are admitted on the same conditions. Graduates in any course of colleges in good standing may enter the Senior Class without preliminary examination.

Students who do not desire to pursue the full course, and who are properly qualified, may take either a special or a partial course in any subject or subjects taught in the School.

DEGREES.

The degree of Bachelor of Philosophy (Ph. B.) is conferred after satisfactory examination on all who have pursued the four years' course, and on graduates in Arts of the University of Pennsylvania, or of colleges of equal standing, who have pursued the course in this School for the Senior year.

Persons who are desirous of additional information, with the view of entering the school or of preparing therefor, are invited to confer with the Secretary, Professor Albert S. Bolles, who will give such advice and suggestions as are needful in each particular case.

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